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<213> Homo sapiens

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Arg His Ile Leu Ile Asn Glu Ser Lys Gln Ser Ala Ala Gln Gln Gly		
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Ala Phe Leu Arg Glu Tyr Leu Tyr Val Tyr Lys Asn Val Ser Gln Leu		
	635	640

				645					650					655	
Ser	Pro	Asp	Gly	Pro	Leu	Pro	Gln	Leu	Pro	Leu	Pro	Tyr	Ile	Asn	Ser
			660					665					670		
Ser	Ala	Thr	Arg	Val	Phe	Phe	Gly	His	Asp	Arg	Arg	Pro	Ala	Asp	Gly
		675					680					685			
Glu	Lys	Gln	Ala	Ala	Thr	His	Val	Ser	Leu	Asp	Gln	Glu	Tyr	Asp	Ser
		690					695				700				
Glu	Ser	Ser	Gln	Gln	Trp	Arg	Glu	Leu	Glu	Glu	Gln	Val	Val	Ser	Val
705					710					715					720
Val	Asn	Lys	Gly	Val	Ile	Pro	Ser	Asn	Phe	His	Pro	Thr	Gln	Tyr	Cys
			725						730					735	
Leu	Asn	Ser	Tyr	Ser	Asp	Asn	Ser	Arg	Phe	Pro	Leu	Ala	Val	Val	Glu
			740					745					750		
Glu	Pro	Ile	Thr	Val	Glu	Val	Ala	Phe	Arg	Asn	Pro	Leu	Lys	Val	Leu
		755					760					765			
Leu	Leu	Leu	Thr	Asp	Leu	Ser	Leu	Leu	Trp	Lys	Phe	His	Pro	Lys	Asp
		770				775					780				
Phe	Ser	Gly	Lys	Asp	Asn	Glu	Glu	Val	Lys	Gln	Leu	Val	Thr	Ser	Glu
785					790					795					800
Pro	Glu	Met	Ile	Gly	Ala	Glu	Val	Ile	Ser	Glu	Phe	Leu	Ile	Asn	Gly
			805						810					815	
Glu	Glu	Ser	Lys	Val	Ala	Arg	Leu	Lys	Leu	Phe	Pro	His	His	Ile	Gly
			820					825					830		
Glu	Leu	His	Ile	Leu	Gly	Val	Val	Tyr	Asn	Leu	Gly	Thr	Ile	Gln	Gly
		835					840					845			
Ser	Met	Thr	Val	Asp	Gly	Ile	Gly	Ala	Leu	Pro	Gly	Cys	His	Thr	Gly
		850				855					860				
Lys	Tyr	Ser	Leu	Ser	Met	Ser	Val	Arg	Gly	Lys	Gln	Asp	Leu	Glu	Ile
865					870					875					880
Gln	Gly	Pro	Arg	Leu	Asn	Asn	Thr	Lys	Glu	Glu	Lys	Thr	Ser	Val	Lys
			885						890					895	
Tyr	Gly	Pro	Asp	Arg	Arg	Leu	Asp	Pro	Ile	Ile	Thr	Glu	Glu	Met	Pro
		900						905				910			
Leu	Leu	Glu	Val	Phe	Phe	Ile	His	Phe	Pro	Thr	Gly	Leu	Leu	Cys	Gly
		915					920					925			
Glu	Ile	Arg	Lys	Ala	Tyr	Val	Glu	Phe	Val	Asn	Val	Ser	Lys	Cys	Pro
		930				935					940				
Leu	Thr	Gly	Leu	Lys	Val	Val	Ser	Lys	Arg	Pro	Glu	Phe	Phe	Thr	Phe
945					950					955					960
Gly	Gly	Asn	Thr	Ala	Val	Leu	Thr	Pro	Leu	Ser	Pro	Ser	Ala	Ser	Glu
			965						970					975	
Asn	Cys	Ser	Ala	Tyr	Lys	Thr	Val	Val	Thr	Asp	Ala	Thr	Ser	Val	Cys
			980					985				990			
Thr	Ala	Leu	Ile	Ser	Ser	Ala	Ser	Ser	Val	Asp	Phe	Gly	Ile	G	



1075	1080	1085
Asn Ser Leu Glu	Asn Glu Glu Gly Arg Gly Gly	Asn Met Leu Val Phe
1090	1095	1100
Val Asp Val Glu	Asn Thr Ser Glu Ala Gly Val	Lys Glu Phe
1105	1110	1115
His Ile Val Gln	Val Ser Ser Ser Lys His Trp	Lys Leu Gln Lys
1125	1130	1135
Ser Val Asn Leu	Ser Glu Asn Lys Asp Ala Lys	Leu Ala Ser Arg Glu
1140	1145	1150
Lys Gly Lys Phe	Cys Phe Lys Ala Ile Arg Cys	Glu Lys Glu Glu Ala
1155	1160	1165
Ala Thr Gln Ser	Ser Glu Lys Tyr Thr Phe Ala	Asp Ile Ile Phe Gly
1170	1175	1180
Asn Glu Gln Ile	Ile Ser Ser Ala Ser Pro Cys	Ala Asp Phe Phe Tyr
1185	1190	1195
Arg Ser Leu Ser	Ser Glu Leu Lys Lys Pro Gln	Ala His Leu Pro Val
1205	1210	1215
His Thr Glu Lys	Gln Ser Thr Glu Asp Ala Val	Arg Leu Ile Gln Lys
1220	1225	1230
Cys Ser Glu Val	Asp Leu Asn Ile Val Ile Leu	Trp Lys Ala Tyr Val
1235	1240	1245
Val Glu Asp Ser	Lys Gln Leu Ile Leu Glu Gly	Gln His His Val Ile
1250	1255	1260
Leu Arg Thr Ile	Gly Lys Glu Ala Phe Ser Tyr	Pro Gln Lys Gln Glu
1265	1270	1275
Pro Pro Glu Met	Glu Leu Leu Lys Phe Phe Arg	Pro Glu Asn Ile Thr
1285	1290	1295
Val Ser Ser Arg	Pro Ser Val Glu Gln Leu Ser	Ser Leu Ile Lys Thr
1300	1305	1310
Ser Leu His Tyr	Pro Glu Ser Phe Asn His Pro	Phe His Gln Lys Ser
1315	1320	1325
Leu Cys Leu Val	Pro Val Thr Leu Leu Leu Ser	Asn Cys Ser Lys Ala
1330	1335	1340
Asp Val Asp Val	Ile Val Asp Leu Arg His Lys	Thr Thr Ser Pro Glu
1345	1350	1355
Ala Leu Glu Ile	His Gly Ser Phe Thr Trp Leu	Gly Gln Thr Gln Tyr
1365	1370	1375
Lys Leu Gln Leu	Lys Ser Gln Glu Ile His Ser	Leu Gln Leu Lys Ala
1380	1385	1390
Cys Phe Val His	Thr Gly Val Tyr Asn Leu Gly	Thr Pro Arg Val Phe
1395	1400	1405
Ala Lys Leu Ser	Asp Gln Val Thr Val Phe Glu	Thr Ser Gln Gln Asn
1410	1415	1420
Ser Met Pro Ala	Leu Ile Ile Ile Ser Asn Val	
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&lt;210&gt; 3915

&lt;211&gt; 1802

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3915

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240  
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420  
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1680

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 aa  
 1802

<210> 3916  
 <211> 342  
 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Ala Ser Thr Asp Ala Val Ser Ala Leu Leu Glu Gln Thr Ala Val Glu  
 35 40 45  
 Leu Glu Lys Arg Gln Glu Gly Arg Ser Ser Thr Gln Thr Leu Glu Asp  
 50 55 60  
 Ser Trp Arg Tyr Glu Glu Thr Ser Glu Asn Glu Ala Val Ala Glu Glu  
 65 70 75 80  
 Glu Glu Glu Glu Val Glu Glu Glu Gly Glu Glu Asp Val Phe Thr Glu  
 85 90 95  
 Lys Ala Ser Pro Asp Met Asp Gly Tyr Pro Ala Leu Lys Val Asp Lys  
 100 105 110  
 Glu Thr Asn Thr Glu Thr Pro Ala Pro Ser Pro Thr Val Val Arg Pro  
 115 120 125  
 Lys Asp Arg Arg Val Gly Thr Pro Ser Gln Gly Pro Phe Leu Arg Gly  
 130 135 140  
 Ser Thr Ile Ile Arg Ser Lys Thr Phe Ser Pro Gly Pro Gln Ser Gln  
 145 150 155 160  
 Tyr Val Cys Arg Leu Asn Arg Ser Asp Ser Asp Ser Thr Leu Ser  
 165 170 175  
 Lys Lys Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg  
 180 185 190  
 Met Lys Arg Pro Ser Pro Pro Pro Gln Pro Ser Ser Val Lys Ser Leu  
 195 200 205  
 Arg Ser Glu Arg Leu Ile Arg Thr Ser Leu Asp Leu Glu Leu Asp Leu  
 210 215 220  
 Gln Ala Thr Arg Thr Trp His Ser Gln Leu Thr Gln Glu Ile Ser Val  
 225 230 235 240  
 Leu Lys Glu Leu Lys Glu Gln Leu Glu Gln Ala Lys Ser His Gly Glu  
 245 250 255  
 Lys Glu Leu Pro Gln Trp Leu Arg Glu Asp Glu Arg Phe Arg Leu Leu  
 260 265 270  
 Leu Arg Met Leu Glu Lys Arg Gln Met Asp Arg Ala Glu His Lys Gly  
 275 280 285  
 Glu Leu Gln Thr Asp Lys Met Met Arg Ala Ala Ala Lys Asp Val His  
 290 295 300  
 Arg Leu Arg Gly Gln Ser Cys Lys Glu Pro Pro Glu Val Gln Ser Phe  
 305 310 315 320  
 Arg Glu Lys Met Ala Phe Phe Thr Arg Pro Arg Met Asn Ile Pro Ala

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Leu Ser Ala Asp Asp Val  
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330

335

<210> 3917  
<211> 597  
<212> DNA  
<213> Homo sapiens

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120  
taacatcaga aacagggtgag aatgaccact ttaactcacc gggcccgctc cactgaaata  
180  
agcaagaact ctgaaaagaa gatggaaagt gaggaagaca gtaattggga gaaaagtcca  
240  
gacaatgaag attctggaga ctctaaggat atccgcctta ctcttatgga agaagtattg  
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360  
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420  
ccgaccatgc gtaagaagcg actactagac agaaaggtag tgctaaagtc agacagccca  
480  
acagggtgatg ttttactgga tgaaactctg aaacacatca aagcaactga acccacagaa  
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597

<210> 3918  
<211> 152  
<212> PRT  
<213> Homo sapiens

<400> 3918  
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Ser Glu Lys Lys Met Glu Ser Glu Glu Asp Ser Asn Trp Glu Lys Ser  
20 25 30  
Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu  
35 40 45  
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr  
50 55 60  
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu  
65 70 75 80  
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met  
85 90 95  
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser  
100 105 110  
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala  
115 120 125  
Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

130  
Glu Thr Trp Asn Pro Phe Lys Leu  
145

135

150

140

&lt;210&gt; 3919

&lt;211&gt; 1278

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3919

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180
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240
gccaggctgc ggcgcgtcag gcaggagctg gaggataaga cagagcagct tgtggacacc
300
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420
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480
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540
gaaaccaagg ccatgctgga ggaacagctg actgctgctc gggcccgggg cgataaagtc
600
catgagctgg aaaaggagaa cctgcagctg aaatccaagc ttcacgacct ggaattggac
660
cgggacacag ataagaaacg aattgaggag ctgctggaag aaaacatggt ccttgagatt
720
gcacagaagc agagcatgaa cgaatctgcc caccttggct gggagctgga gcagctgtcc
780
aagaacgcag acttgtcaga cgctccagg aagtcgtttg tgtttgagct gaacgaatgt
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960
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1200
agtgaggccc gcatgaaaga cgtggagaag gagaacaaag ccctccacca gacggtgacg
1260
gaggccaatg gcaagctt
1278

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&lt;210&gt; 3920

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3920

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Xaa Pro Glu Glu Leu Glu Ala Leu Ser Arg Ser Met Val Leu His Leu
 1          5          10          15
Arg Arg Leu Ile Asp Gln Arg Asp Glu Cys Thr Glu Leu Ile Val Asp
 20          25          30
Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
 35          40          45
Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
 50          55          60
Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
 65          70          75          80
Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
 85          90          95
Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
100          105          110
-----Lys-Val-Lys-Gln-Glu-Asn-Ile-Gln-Leu-Ala-Ala-Asp-Ala-Arg-Ser-Ala-----
115          120          125
Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
130          135          140
Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
145          150          155          160
Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
165          170          175
Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
180          185          190
Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
195          200          205
Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
210          215          220
Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
225          230          235          240
Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
245          250          255
Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
260          265          270
Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
275          280          285
Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
290          295          300
Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
305          310          315          320
Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
325          330          335
Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
340          345          350
Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
355          360          365
Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

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370	375	380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser		
385	390	395
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His		400
	405	410
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu		415
	420	425

<210> 3921  
 <211> 413  
 <212> DNA  
 <213> Homo sapiens

<400> 3921  
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 atgcctctgc tgcttgccag cctcgtgacc ttcattcatg cagggccttg tttctctgat  
 180  
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 240  
 gagggttcca gagaatgggc ctggcgttct gcaagcctgg caccctcctt ggatgctttt  
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 413

<210> 3922  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 3922  
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 Leu Leu Ala Ser Leu Val Thr Phe Ile His Ala Gly Pro Cys Phe Leu  
 35 40 45  
 Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg  
 50 55 60  
 Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala  
 65 70 75 80  
 Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg  
 85 90 95  
 Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala  
 100 105 110  
 His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile  
 115 120 125

<210> 3923  
 <211> 820

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3923

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120

tctttctect cttgctgaag cttctgctcc atctctcgca ggactgggtc tgttggggcc  
180

agaccacact cccactgggt ttgtcgcagt tttttaaggg agccattttg ttctaagtgc  
240

ttggtcttgc agtgtctttt ccggcctcga cgcaaagaag gaagtggctc ttcacttagg  
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540

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720

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780

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820

&lt;210&gt; 3924

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3924

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Lys Pro Leu Val Ala Val Asn Thr Arg Leu Ser Gly Gly Gln Val Leu  
20 25 30

Ser Glu Tyr Thr Gly Pro Thr Ser Ala Asp Leu Asp His Phe Pro Ser  
35 40 45

Val Ser Gln Thr Lys Ala Glu Gln Asp Ser Asp Asn Lys Ser Ser Thr  
50 55 60

Glu Ile Pro Leu Glu Thr Cys Cys Ser Ser Glu Leu Lys Gly Gly Gly  
65 70 75 80

Ser Gly Thr Ser Leu Glu Arg Glu Gln Phe Glu Gly Leu Gly Ser Thr  
85 90 95

Pro Asp Ala Lys Leu Asp Lys Thr Cys Ile Ser Arg Ala Met Lys Ile  
100 105 110

Thr Thr Val Asn Ser Val Leu Pro Gln Asn Ser Val Leu Gly Gly Val



115	120	125
Leu Lys Thr Lys Gln Gln Leu Lys Thr Leu Asn His Phe Asp Leu Thr		
130	135	140
Asn Gly Val Leu Val Glu Ser Leu Ser Glu Glu Pro Leu Pro Ser Leu		
145	150	155
Arg Arg Gly Arg Lys Arg His Cys Lys Thr Lys His Leu Glu Gln Asn		160
165	170	175
Gly Ser Leu Lys Lys Leu Arg Gln Thr Ser Gly Glu Val Gly Leu Ala		
180	185	190
Pro Thr Asp Pro Val Leu Arg Glu Met Glu Gln Lys Leu Gln Gln Glu		
195	200	205
Glu Glu Asp Arg Gln Leu Ala Leu Gln Leu Gln Arg Met Phe Asp Asn		
210	215	220
Glu Arg Arg Thr Val Ser Arg Arg Lys Gly Ser Val Asp Gln Tyr Leu		
225	230	235
Leu Arg Ser Ser Asn Met Ala Gly Gly Arg		240
245	250	

&lt;210&gt; 3925

&lt;211&gt; 3296

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3925

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&lt;210&gt; 3926

&lt;211&gt; 683

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3926

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&lt;210&gt; 3927

&lt;211&gt; 3197

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3927

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<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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		20					25						30		
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Pro	Met	Pro	Arg	Leu	Pro	Ser	Leu	Trp	Pro	Leu	Ser	Leu	Pro	Leu	Arg
	50				55					60					
Ser	Leu	Ser	Ser	Pro	His	Arg	Val	Gln	Gly	Leu	Gly	Pro	Pro	Arg	Arg
65				70				75						80	
Leu	Lys	Ser	Gln	Leu	Leu	Pro	Arg	Phe	Phe	Trp	Arg	Arg	Gln	Gln	Glu
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Pro	Leu	Ser	Ser	Phe	Pro	Gly	Arg	Asn	Glu	Gly	Gly	Ser	Glu	Met	Glu
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Ser	Pro	Thr	Gly	Phe	Trp	Arg	Pro	Arg	Glu	Ala	Ser	Ser	Leu	Glu	Leu
	130				135					140					
Ala	Lys	Gly	Ile	Ser	Lys	Arg	Arg	His	Phe	Leu	Pro	Ala	Pro	Ala	Leu
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Cys	Pro	Asn	Pro	Arg	Ser	Ser	Glu	Ala	Phe	Pro	Gly	Ala	Val	Cys	Val
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Thr	Leu	Ala	Ile												
			180												

<210> 3929

<211> 470

<212> DNA

<213> Homo sapiens

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 470

&lt;210&gt; 3930

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3930

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		35					40					45			
Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
	50					55				60					
Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Val	Gln	Gln	Glu	
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			85					90					95		
Pro	Glu	Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Val	Ala	Gly	Arg
			100					105					110		
Ser	His	His													
			115												

&lt;210&gt; 3931

&lt;211&gt; 3568

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3931

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 3934

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3934

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 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3936

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Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
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Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
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&lt;210&gt; 3937

&lt;211&gt; 744

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3937

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&lt;210&gt; 3938

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3938

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&lt;210&gt; 3939

&lt;211&gt; 490

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3939

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1440  
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1500  
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1560  
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1620  
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1680  
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1740  
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1800  
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1860  
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1920  
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1980  
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2040  
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2077

&lt;210&gt; 3942

<211> 89  
 <212> PRT  
 <213> Homo sapiens

<400> 3942  
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 20 25 30  
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 35 40 45  
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala  
 50 55 60  
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Gly Thr Asp Met  
 65 70 75 80  
 Ser Ser Ala Asn Ala His Ser Ala Leu  
 85

<210> 3943  
 <211> 1524  
 <212> DNA  
 <213> Homo sapiens

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 accccgggac ccccgccgtc cccgggcggc cggcggtgg gcacgatgag ccagggtgtg  
 120  
 gggaagccgc agccgcagga cgaggacgac gcggaggagg agggaggagga ggatgagctg  
 180  
 gtggggctag cggactacgg agacggggcc gactcctccg acgccgatcc ggacagcggc  
 240  
 acagaggagg gagttctgga cttcagtgc cccttcagca ctgaagtga gccgagaatc  
 300  
 ctgctcatgg gcctgaggag aagcggcaag tcgtctattc agaaagttgt ctttcacaaa  
 360  
 atgtctccca acgaaactct gttcttggag agcactaata agatatgccg ggaagatgtt  
 420  
 tccaacagct cctttgtcaa ttttcagatt tgggacttcc caggacagat tgactttttt  
 480  
 gaccctacat ttgactatga gatgatcttc cggggaacag gagcattgat atttgtcatt  
 540  
 gacgcacagg atgactacat ggaggcttta acaagacttc acattactgt ttctaaagcc  
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 tacaaagtta acccagacat gaattttgag gtttttattc ataaagttga tggctctgtc  
 660  
 gatgatcaca aaatagaaac acagagggac attcatcaaa gggccaatga tgaccttgca  
 720  
 gatgctggat tagaaaaaat tcacctcagc ttttatctga caagcatata tgatcattca  
 780  
 atatttgaag cttttagcaa agttgttcag aaactgattc cacaactccc aactctggag  
 840  
 aatttgctga acatctttat ctcaaattct ggaattgaaa aggcatttct atttgatgtg  
 900

gtcagtaaaa tttatattgc aactgatagt actccggtgg atatgcaaac ctatgagctc  
 960  
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 1020  
 ggagcaggaa cccctatga caaggaatcc acagccatca taaagcttaa taatacaacc  
 1080  
 gtgctttatt taaaagaggt gacaaagttc ctggctctcg tttgctttgt cagagaggaa  
 1140  
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 1200  
 gaagtttttg aggtgagaat gaaagtagta aaatctcgaa aggttcagaa tcggctgcag  
 1260  
 aagaaaaaga gagccacccc taatgggacc cctagagtgc tgctgtaggt gaggtttcag  
 1320  
 gaatgtcttt tgaatcaga cttatccat gaggetgctg cgccatgttg cactaaagga  
 1380  
 agaggaagaa ggagattggg acacatacca ttgatttgtt gttaaaaaaaa aaaaattcct  
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 1500  
 aaaaaaaaaa aaaaaaaaaa aaaa  
 1524

<210> 3944  
 <211> 435  
 <212> PRT  
 <213> Homo sapiens

<400> 3944  
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 20 25 30  
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 35 40 45  
 Asp Asp Ala Glu Glu Glu Glu Glu Asp Glu Leu Val Gly Leu Ala  
 50 55 60  
 Asp Tyr Gly Asp Gly Pro Asp Ser Ser Asp Ala Asp Pro Asp Ser Gly  
 65 70 75 80  
 Thr Glu Glu Gly Val Leu Asp Phe Ser Asp Pro Phe Ser Thr Glu Val  
 85 90 95  
 Lys Pro Arg Ile Leu Leu Met Gly Leu Arg Arg Ser Gly Lys Ser Ser  
 100 105 110  
 Ile Gln Lys Val Val Phe His Lys Met Ser Pro Asn Glu Thr Leu Phe  
 115 120 125  
 Leu Glu Ser Thr Asn Lys Ile Cys Arg Glu Asp Val Ser Asn Ser Ser  
 130 135 140  
 Phe Val Asn Phe Gln Ile Trp Asp Phe Pro Gly Gln Ile Asp Phe Phe  
 145 150 155 160  
 Asp Pro Thr Phe Asp Tyr Glu Met Ile Phe Arg Gly Thr Gly Ala Leu  
 165 170 175  
 Ile Phe Val Ile Asp Ala Gln Asp Asp Tyr Met Glu Ala Leu Thr Arg  
 180 185 190  
 Leu His Ile Thr Val Ser Lys Ala Tyr Lys Val Asn Pro Asp Met Asn

195	200	205
Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys		
210	215	220
Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala		
225	230	235
Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile		
245	250	255
Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu		
260	265	270
Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser		
275	280	285
Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile		
290	295	300
Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu		
305	310	315
Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly		
325	330	335
Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala		
340	345	350
Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys Glu Val Thr		
355	360	365
Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser Phe Glu Arg		
370	375	380
Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys Ala Ile His		
385	390	395
Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg Lys Val Gln		
405	410	415
Asn Arg Leu Gln Lys Lys Lys Arg Ala Thr Pro Asn Gly Thr Pro Arg		
420	425	430
Val Leu Leu		
435		

<210> 3945  
 <211> 696  
 <212> DNA  
 <213> Homo sapiens

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 120  
 cgggcgcgcc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt  
 180  
 tccgatttcc gcggaaccga gtcccgcgcc gcggcagagc cagcacagcc agcgcgccat  
 240  
 ggccgacccg gaggtgtgct gttcatcac caaaatcctg tgcgcccacg ggggcccgc  
 300  
 ggccctggac gcgctgctcc aggagatcgc gctgtctgag ccgcagctct gtgaggtgct  
 360  
 gcaggtggcc ggcccgcacc gctttgtggt gttggagacc ggcggcgagg cccggatcac  
 420  
 ccgacgggtg gtggccacca ctcgagcccg ggtctgccgt cgcaagtact gccagagacc  
 480

ctgcgataac ctgcatctct gcaaactcaa cttgctgggc cgggtgcaact attcgagtc  
 540  
 cgagcggaat ttatgcaaat atttcatga gggtctctca gaagagaact tcaaagtcct  
 600  
 gaaaaatcac gaactctctg gactgaacaa agaggaatta gcagtgtcc tctccaaag  
 660  
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 696

<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

Met	Gln	Val	Ile	Ala	Gly	Ser	Leu	Ala	Val	Leu	Ala	Thr	Ala	Asp	Pro
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Gly	Ser	Ser	Gly	Gly	His	His	Arg	Ser	Gly	Asp	Pro	Gly	Leu	Ala	Ala
			20					25					30		
Gly	Leu	Gln	His	His	Lys	Ala	Val	Gly	Pro	Gly	His	Leu	Gln	His	Leu
		35					40					45			
Thr	Glu	Leu	Arg	Leu	Arg	Gln	Arg	Asp	Leu	Leu	Glu	Gln	Arg	Val	Gln
	50				55						60				
Gly	His	Ala	Ala	Pro	Val	Gly	Ala	Gln	Asp	Phe	Gly	Asp	Glu	Ala	Ala
65					70					75				80	
His	Leu	Arg	Val	Arg	His	Gly	Ala	Leu	Ala	Val	Leu	Ala	Leu	Pro	Arg
			85						90					95	
Arg	Gly	Thr	Arg	Phe	Arg	Gly	Asn	Arg	Lys	Ser	Lys	Leu	Thr	Ser	Val
			100					105					110		
Gln	Gly	Arg	Ala	Arg	Ala	Val	Leu	Leu	Leu	Gly	Ala	Pro	Gly	Val	Ser
		115					120					125			
Glu	Gly	Ala	Leu	Ser	Val	Ala	Val	Ser	Pro	Ala	Gln	Arg	Ser	Thr	Leu
		130				135						140			
Gly	Ser	Gln	Val	Lys	Arg	Leu	Asp	Leu	Thr	Asp	Arg	Val	Leu	Val	Ala
145				150						155				160	
Gly	Leu	Gln	Pro	Ala											
				165											

<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

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 120  
 ctgcagggca tcatcgacga cttggtggtg ctgacagcag aacccacaa actgcctccc  
 180  
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctggtc ctaccagacc  
 240  
 ccacctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccagc  
 300

agcagtagca gtgccaaggg tggcggaagc cccatggcct ggggggtgcc aaacatactc  
 360  
 acccagttcc acctgtcgct accgcagcct ggcgcagcca  
 400

<210> 3948  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 3948  
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 20 25 30  
 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu  
 35 40 45  
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln  
 50 55 60  
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr  
 65 70 75 80  
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Arg Lys Ser Ser Met Cys  
 85 90 95  
 Ser Ala Pro Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met  
 100 105 110  
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro  
 115 120 125  
 Gln Pro Gly Ala Ala  
 130

<210> 3949  
 <211> 1462  
 <212> DNA  
 <213> Homo sapiens

<400> 3949  
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 120  
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccactgctga  
 180  
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt  
 240  
 tgtgtcagct ctgtccaaat ctctaactga cttgtgaact aaaaagaaag gtttctacca  
 300  
 tcagcagact gtcaccata gacatttaca cagtattttg gtttggagtt cttcctaata  
 360  
 gtcacttcac agaaaaatat atagggtgctg ttttgccctg gaagccagac agatcagaat  
 420  
 attgggtaag atagctgggt cagctgtcct tggatggatc ccaaacta tgctccttc  
 480  
 caggcctgag aatcgccgaa cactgtccaa cacaatgtga tcaccaaca tatcacatgc  
 540



atcactgagc tgcaccaccc ttttcttcct cattgcttcc aagagctcat acttatagt  
 600  
 ctccacttct tttgcggtgc tgacaagcac agcaacatcc tttggagaat agccccatc  
 660  
 aaagaagcgc ctgcacgtgt ctgccacaca ggtcattatt tgctccacag tcaagtattt  
 720  
 cttaattcgt aaggttcctt gaacaccctg ggaccattcg gcttcaggaa atacctcgag  
 780  
 gcacccagtg gggatattaa ttggaggatt ttctataatt agttgcattt ctttttgtaa  
 840  
 gtactcggct atttcatctg cattgcgaac tattctggtg agctcttctc ttggatattg  
 900  
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 960  
 gatccagaga actcctggac aatccttttc tctctgagt atgtcttttg ccttcccata  
 1020  
 ccagtcacca tcttcagtac ggaaattctg agcttcgtca atgacgatgt gttgaatgtg  
 1080  
 ttcaaatttt tctcttagga aagtttcccg ggtctctgct cggcagatat ttctatcact  
 1140  
 gataaagttc ctcagaggtt ggttttcaca aacgtagaga attctgtgtg cctcacagt  
 1200  
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 1260  
 taagccgtgg acaaacactc ctctgttctt gcggaggctt ctggagaata tctcatactg  
 1320  
 ctgggctgtg agcagattta aaacctcaca gccgagctgg tcaactcaaga gagacctgaa  
 1380  
 gccgagtaag acaatcacga gggactgcag cagggtcttc atgtgctggg tgccctgcaag  
 1440  
 gctataggac gcagggtaat cc  
 1462

&lt;210&gt; 3950

&lt;211&gt; 351

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3950

Met	Glu	Ala	Leu	Leu	Gln	Ser	Leu	Val	Ile	Val	Leu	Leu	Gly	Phe	Arg
1				5					10					15	
Ser	Leu	Leu	Ser	Asp	Gln	Leu	Gly	Cys	Glu	Val	Leu	Asn	Leu	Leu	Thr
			20					25					30		
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
			35				40					45			
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
		50				55					60				
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65					70				75					80	
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
			85					90					95		
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
			100					105					110		
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

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      115      120      125
Thr Glu Asp Gly Asp Trp Tyr Gly Lys Ala Lys Ser Ile Thr Gln Arg
      130      135      140
Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln
145      150      155      160
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr
      165      170      175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala
      180      185      190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile
      195      200      205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser
      210      215      220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu
225      230      235      240
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg
      245      250      255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu
      260      265      270
Val Glu His Tyr Lys Tyr Glu Leu Leu Lys Ala Met Arg Lys Lys Arg
      275      280      285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val
      290      295      300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe
305      310      315      320
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu
      325      330      335
Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr Ile Phe Leu
      340      345      350

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<210> 3951  
 <211> 1012  
 <212> DNA  
 <213> Homo sapiens

<400> 3951  
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 120  
 gtccaggagt tccaggttcc ggattatgtt ccatggcagc agtccaagca ggaaaccaag  
 180  
 ccatctactc tgcctccagt ccaacaagcc aacagccttc atacaagcaa aatgaagact  
 240  
 ttgactaggg tccaaccagt gtttcacttc aagccacta cgggtgtgac aagctgccag  
 300  
 ccgaagaatc caagagaact acatagaagg cggaagttag accctgggaa gatgcatgcc  
 360  
 aaaatctggt taatgaagac ctgcgtcagg agcgggaggg ccgctctgag agagctccga  
 420  
 agccgtgaga acttctcag caagctcaac cgggagctga tcgagaccat ccaggagatg  
 480  
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 540

atcatcgaca tcttggagta ctcaaacaag aagaggctgc agcaattgaa atctgagctt  
 600  
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 660  
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 780  
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 840  
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 900  
 gcgcagaaag gtctctgggaa tccttggtccg acaagattca gaagaagaag aaaaaaattc  
 960  
 tgagttctgt ggtggcggtg agtagccagt tgctgtgtgg gagcggggat cc  
 1012

&lt;210&gt; 3952

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3952

Met	Lys	Thr	Leu	Thr	Arg	Val	Gln	Pro	Val	Phe	His	Phe	Lys	Pro	Thr
1				5					10					15	
Thr	Val	Val	Thr	Ser	Cys	Gln	Pro	Lys	Asn	Pro	Arg	Glu	Leu	His	Arg
			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35					40					45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
	50					55					60				
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65					70					75				80	
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
			85						90					95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
			100					105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
	130					135						140			
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155				160	
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
			165					170						175	
Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180					185							

&lt;210&gt; 3953

&lt;211&gt; 2900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3953

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120  
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180  
cagggtgggag atgaaacagg tactcccaa aataggtcat ccgagggagg aaaactgatg  
240  
gagagcacia tgtgctctga gcgtttttaa tgtttttaag cttttaaatg atttcttcaa  
300  
ggccgagcag cagcagcaaa ggtgtggctt aaaggattaa gggggtttct gctggcacct  
360  
agaatgaagt tactctatta ctaatcaagc cgagaggagg cccactatgc ccccgttat  
420  
catcctttcc cagttccttt ttgctggta caaaacgatg ctcatcaatc ccacctaaag  
480  
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540  
tgcccccaag acgaaggagg actctcgga gccaaagaa gtttaagaag tctttctgga  
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780  
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840  
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&lt;210&gt; 3954

&lt;211&gt; 627

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3954

Met Gly Leu Leu Gln Gly Leu Leu Arg Val Arg Lys Leu Leu Val  
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Tyr	Phe	Lys	Asn	Thr	Thr	Leu	Leu	Leu	Val	Gly	Val	Ile	Cys	Val	Ala			
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Ser Lys Ser Ser Gly Leu Ser Thr Trp Ile Gly Asn Gln Met Leu Ser
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Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu
      500              505              510
Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile
      515              520              525
Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
      530              535              540
Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
545              550              555              560
Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His
      565              570              575
Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile
      580              585              590
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu
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Phe His Leu Asp Thr Tyr Pro Ala Trp Ala Arg Val Ser Asn Ile Thr
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Asp Gln Ala  
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<212> DNA  
<213> Homo sapiens

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<210> 3956  
<211> 174  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 3956

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      20           25           30
Ser Thr Met Thr Tyr Leu Asn Lys Gly Gln Phe Tyr Pro Ile Thr Leu
      35           40           45
Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
      50           55           60
Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
      65           70           75           80
Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
      85           90           95
Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
      100          105          110
Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
      115          120          125
Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
      130          135          140
Phe Ser Ser Gln Lys Gly Val Lys Gly Leu Pro Leu Asn Ile Gln Val
      145          150          155          160
Asp Thr Tyr Ser Tyr Asn Asn Arg Ser Asn Lys Pro Val His
      165          170

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&lt;210&gt; 3957

&lt;211&gt; 3891

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3957

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&lt;210&gt; 3958

&lt;211&gt; 440

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3958

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Thr Glu Pro Ala Gln Ala Gln Lys Cys Tyr Arg Asp Leu Ala Leu Val
        35           40           45
Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
       50           55           60
Met Glu Lys Tyr Leu Lys Leu Gln Asp Thr Cys Arg Thr Gln Leu Val
      65           70           75           80
Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
          85           90           95
Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
        100           105           110
Lys Asn Ile Trp Leu Ala Glu Ser Val Leu Asp Ile Leu Thr Glu Gln
       115           120           125
Arg Glu Trp Val Leu Lys Ser Ile Leu Ile Ala Met Ala Val Tyr
      130           135           140
Thr Tyr Leu Arg Leu Ile Val Asp His His Gly Thr Ala Gln Leu Gln
     145           150           155           160
Ala Leu Arg Gln Lys Glu Val Asp Phe Cys Ile Ser Leu Leu Arg Glu
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Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
        180           185           190
Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
       195           200           205
Ile His Asn Pro Gln Ala Leu Ser Pro Gln Phe Thr Gly Ile Leu Gln
      210           215           220
Leu Leu Gln Ser Arg Thr Ser Arg Lys Phe Leu Ala Cys Arg Leu Thr
     225           230           235           240
Pro Asp Met Glu Thr Lys Leu Leu Phe Met Thr Ser Arg Val Arg Phe
          245           250           255
Gly Gln Gln Lys Arg Tyr Gln Asp Trp Phe Gln Arg Gln Tyr Leu Ser
        260           265           270
Thr Pro Asp Ser Gln Ser Leu Arg Cys Asp Leu Ile Arg Tyr Ile Cys
       275           280           285
Gly Val Val His Pro Ser Asn Glu Val Leu Ser Ser Asp Ile Leu Pro
      290           295           300
Arg Trp Ala Ile Ile Gly Trp Leu Leu Thr Thr Cys Thr Ser Asn Val
     305           310           315           320
Ala Ala Ser Asn Ala Lys Leu Ala Leu Phe Tyr Asp Trp Leu Phe Phe
          325           330           335
Ser Pro Asp Lys Asp Ser Ile Met Asn Ile Glu Pro Ala Ile Leu Val
        340           345           350
Met His His Ser Met Lys Pro His Pro Ala Ile Thr Ala Thr Leu Leu
       355           360           365
Asp Phe Met Cys Arg Ile Ile Pro Asn Phe Tyr Pro Pro Leu Glu Gly
      370           375           380
His Val Arg Gln Gly Val Phe Ser Ser Leu Asn His Ile Val Glu Lys

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Thr Lys Thr Pro Ser Ser Pro Val
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 <212> DNA  
 <213> Homo sapiens

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<210> 3960  
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 <212> PRT  
 <213> Homo sapiens

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Gly Pro Asn Ser Pro Leu Asp Phe Leu Phe Ser Phe Gln Asn Ala Val
20          25          30
Ser Lys Tyr Gly Ser Gln Phe Gln Gly Asn Ser Gln His Asp Ala Leu
35          40          45
Glu Phe Leu Leu Trp Leu Leu Asp Arg Val His Glu Asp Leu Glu Gly

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50	55	60
Ser Ser Arg Trp Ala Arg Cys Arg Arg Ser Phe Arg Leu Lys Pro Leu		
65	70	75
Lys Pro Leu Arg Thr Ala Cys His His Gln Leu Ser Phe Leu		80
	85	90

&lt;210&gt; 3961

&lt;211&gt; 2505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3961

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1260

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&lt;210&gt; 3962

&lt;211&gt; 306

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3962

Thr	Lys	Asn	Ile	Glu	Gly	Gln	Met	Thr	Pro	Tyr	Tyr	Pro	Val	Gly	Met
1				5				10					15		
Gly	Asn	Gly	Thr	Pro	Cys	Ser	Leu	Lys	Gln	Asn	Arg	Pro	Arg	Ser	Ser
		20					25					30			
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser

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      35          40          45
Val Ala Glu Val Thr Thr Cys Glu Tyr Glu Val Val Ile Leu Thr Pro
  50          55          60
Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
  65          70          75          80
Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
      85          90          95
Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg
      100          105          110
Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
      115          120          125
Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
      130          135          140
Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
  145          150          155          160
Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
      165          170          175
Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
      180          185          190
Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
      195          200          205
His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
      210          215          220
Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
  225          230          235          240
Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
      245          250          255
Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
      260          265          270
Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
      275          280          285
Ile Cys Lys Ile Leu Asp Thr Ala Asp Glu Asn Gly Leu Leu Ser Leu
      290          295          300
Pro Asn
305

```

&lt;210&gt; 3963

&lt;211&gt; 1513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3963

```

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  240
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  300
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  360

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 780  
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&lt;210&gt; 3964

&lt;211&gt; 436

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3964

Met	Ala	Met	Ala	Ser	Phe	Leu	Leu	Phe	Tyr	Phe	Thr	Lys	Gly	Met	Met
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Lys	Gly	Gly	Asn	Lys	Gln	Glu	Glu	Ala	Trp	Ile	Asn	Pro	Phe	Val	Lys
			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
		35				40					45				
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg



50	55	60
Met Glu Ile Asp Lys His Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr		
65	70	75
Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser		80
	85	90
Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe		95
	100	105
Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro		110
	115	120
Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro		125
	130	135
Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala		140
145	150	155
Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala		160
	165	170
Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln		175
	180	185
Leu Gln Arg Leu Leu Ala Gln Gln Gln Arg Ala Gln Ser Gln Arg Ser		190
	195	200
Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu		205
210	215	220
<del>Ser Val Gln Gln Gln Met Gln Gln Ser Arg Gln Leu Asp Pro Asn</del>		
225	230	235
Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His		240
	245	250
Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr		255
	260	265
Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe		270
	275	280
Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser		285
	290	295
Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser		300
305	310	315
Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala		320
	325	330
Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp		335
	340	345
Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly		350
	355	360
Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn		365
	370	375
Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn		380
385	390	395
Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn		400
	405	410
Asn Leu Pro Ile Asn Thr Val Arg Glu Val Asp His Leu Arg Asp Arg		415
	420	425
Asn Ser Gly Thr		430
435		

&lt;210&gt; 3965

&lt;211&gt; 2850

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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120  
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180  
gccaggcaga aagggtttcc catggggccg cccctggcgc cgcgcccggc ccacgtaccc  
240  
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 2760  
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 2820  
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 2850

&lt;210&gt; 3966

&lt;211&gt; 782

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3966

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[illegible]

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Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro
465      470      475      480
Asp Thr Pro Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe
      485      490      495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Pro Ala
500      505      510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys
515      520      525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu
530      535      540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val
545      550      555      560
Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro
565      570      575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser
580      585      590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg
595      600      605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro
610      615      620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val
625      630      635      640
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg
645      650      655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln
660      665      670
Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg
675      680      685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu
690      695      700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro
705      710      715      720
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln
725      730      735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly
740      745      750
Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro
755      760      765
Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly
770      775      780

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&lt;210&gt; 3967

&lt;211&gt; 892

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3967

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120
tactggatcc gaggcgggac ctcaagtggac atcatcaaga ctggaggcta caaggtcagc
180

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 300  
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 892

<210> 3968  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 3968  
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 35 40 45  
 Val Asp Ile Ile Lys Thr Gly Gly Tyr Lys Val Ser Ala Leu Glu Val  
 50 55 60  
 Glu Trp His Leu Leu Ala His Pro Ser Ile Thr Asp Val Ala Val Ile  
 65 70 75 80  
 Gly Val Pro Asp Met Thr Trp Gly Gln Arg Val Thr Ala Val Val Thr  
 85 90 95  
 Leu Arg Glu Gly His Ser Leu Ser His Arg Glu Leu Lys Glu Trp Ala  
 100 105 110  
 Arg Asn Val Leu Ala Pro Tyr Ala Val Pro Ser Glu Leu Val Leu Val  
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 Glu Glu Ile Pro Arg Asn Gln Met Gly Lys Ile Asp Lys Lys Ala Leu  
 130 135 140  
 Ile Arg His Phe His Pro Ser  
 145 150

<210> 3969  
 <211> 915

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3969

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120

ggattgcaac tcggggaggg atggagcacg cgtcgtcgcc tgggaaacgg gtcgaccgcg  
180

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240

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300

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540

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915

&lt;210&gt; 3970

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3970

Met Gly Glu Val Glu Ala Pro Gly Arg Leu Trp Leu Glu Ser Pro Pro  
1 5 10 15

Gly Gly Ala Pro Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val  
20 25 30

Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg  
35 40 45

Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val  
50 55 60

Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly  
65 70 75 80

Ile Trp Gly Gly Ile Ala Ser Arg Gln

85

<210> 3971  
 <211> 433  
 <212> DNA  
 <213> Homo sapiens

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 120  
 ctggggaacg ggtaatcaga gaaaccctca ctcatagggt ggtgcccttt atgcagagac  
 180  
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<210> 3972  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3972  
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 Trp Pro Cys Ser Ser Ser Thr Gln Ala His Pro Gly Pro Leu His Leu  
 35 40 45  
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His  
 50 55 60  
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro  
 65 70 75 80  
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn  
 85 90 95  
 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu  
 100 105 110  
 Pro Leu Glu His His Gln Ser Arg  
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<210> 3973  
 <211> 984  
 <212> DNA  
 <213> Homo sapiens

<400> 3973



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&lt;210&gt; 3974

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3974

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 20 25 30  
 Ala Ser His Val Ser Lys Ala Val Cys Ser Thr Tyr Leu Gln Ser Arg  
 35 40 45  
 Tyr Tyr Arg Ala Pro Glu Ile Ile Leu Gly Leu Pro Phe Cys Glu Ala  
 50 55 60  
 Ile Asp Met Trp Ser Leu Gly Cys Val Ile Ala Glu Leu Phe Leu Gly  
 65 70 75 80  
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<212> DNA
<213> Homo sapiens
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<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

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			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
		50				55					60				
His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65					70					75				80	
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
					85				90					95	

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Leu Ala Cys Gln Thr  
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<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

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			20				25					30			
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
		35					40				45				
Gly	Thr	Asp	Tyr	Ile	Arg	Phe	Thr	Glu	Phe	Ile	Glu	Gln	Tyr	Thr	Gly
	50					55				60					
His	Val	Gln	Gln	Gln	Asp	His	His	Pro	Ser	Gln	Gln	Gly	Gln	Gly	Gly
65					70			75					80		
Leu	His	Gly	Ile	Tyr	Leu	Arg	Ala	Phe	Cys	Thr	Gly	Leu	Asp	Ser	Val
			85					90					95		
Leu	Gln	Pro	Tyr	Arg	Gln	Ala	Leu	Leu	Asp	Leu	Glu	Gln	Glu	Phe	Leu
		100					105					110			
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
	115					120					125				
Phe	Gln	Leu	Leu	Phe	Pro	Ser	Val	Met	Val	Val	Val	Glu	Gln	Ile	Lys
	130					135				140					
Ser	Gln	Lys	Ile	His	Gly	Cys	Gln	Ile	Leu	Glu	Thr	Val	Tyr	Lys	His
145					150				155					160	
Ser	Cys	Gly	Gly	Leu	Pro	Pro	Val	Arg	Ser	Ala	Leu	Glu	Lys	Ile	Leu
			165					170						175	
Ala	Val	Cys	His	Gly	Val	Met	Tyr	Lys	Gln	Leu	Ser	Ala	Trp	Met	Leu
		180					185						190		
His	Gly	Leu	Leu	Leu	Asp	Gln	His	Glu	Glu	Phe	Phe	Ile	Lys	Gln	Gly
	195					200						205			
Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
	210				215							220			
Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
225				230						235				240	
Leu	Arg	Leu	Ile	Glu	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln
			245					250						255	
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
		260					265						270		
Ala	Glu	Lys	Ile	Leu	Phe	Val	Gly	Glu	Ser	Val	Gln	Met	Phe	Glu	Asn

275	280	285
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Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe		
305	310	315
Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val		
325	330	335
Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly		
340	345	350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu		
355	360	365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro		
370	375	380
Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala		
385	390	395
His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu		
405	410	415
Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa		
420	425	430
Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser		
435	440	445
Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His		
450	455	460
Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys		
465	470	475
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp		
485	490	495
Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala		
500	505	510
Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu		
515	520	525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu		
530	535	540
Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala		
545	550	555
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu		
565	570	575
Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser		
580	585	590
Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly		
595	600	605
Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser		
610	615	620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser		
625	630	635
Asp Leu Ala Gln Leu Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr		
645	650	655
Gln Ala Gly Gly Thr Leu Gly Ser Phe Gly Met		
660	665	

&lt;210&gt; 3979

&lt;211&gt; 2746

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3979

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&lt;210&gt; 3980

&lt;211&gt; 478

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3980

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&lt;211&gt; 1817

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&lt;213&gt; Homo sapiens

&lt;400&gt; 3988

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Gln Arg Thr Ala Lys Lys	Ala Gly Arg Glu Phe Pro Glu Glu Asp Ala				
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Leu Glu Gln Ile Arg Lys Gln Gln Lys Glu His Ala Glu Leu Ile Glu					
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Asp Tyr Arg Ile Lys Gln Gln Gln Gln Cys Ala Met Ala Pro Pro Thr					
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Met Met Pro Ser Val Gln Pro Gln Pro Pro Leu Ile Pro Gly Ala Thr					
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Pro Pro Thr Met Ser Gln Pro Thr Phe Pro Met Val Pro Gln Gln Leu					
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Gln His Gln Gln His Thr Thr Val Ile Ser Gly His Thr Ser Pro Val					
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Arg Met Pro Ser Leu Pro Gly Trp Gln Pro Asn Ser Ala Pro Ala His					
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Leu Pro Leu Asn Pro Pro Arg Ile Gln Pro Pro Ile Ala Gln Leu Pro					
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Ile Lys Thr Cys Thr Pro Ala Pro Gly Thr Val Ser Asn Ala Asn Pro					
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Gln Ser Gly Pro Pro Pro Arg Val Glu Phe Asp Asp Asn Asn Pro Phe					
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Gln Glu Arg Gln Arg Ile Gln Leu Met Gln Glu Val Asp Arg Gln Arg					
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Ala Leu Gln Gln Arg Met Glu Met Glu Gln His Gly Met Val Gly Ser					
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Ser Asp Leu Pro Cys Asp Phe Met Gln Pro Leu Gly Pro Leu Gln Gln					
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Ser Pro Gln His Gln Gln Gln Met Gly Gln Val Leu Gln Gln Gln Asn					
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Thr Asn Glu Arg Arg Gln Val Gly Pro Pro Ser Phe Val Pro Asp Ser					
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Pro Ser Ile Pro Val Gly Ser Pro Asn Phe Ser Ser Val Lys Gln Gly					
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His Gly Asn Leu Ser Gly Thr Ser Phe Gln Gln Ser Pro Val Arg Pro					
385	390	395	400		
Ser Phe Thr Pro Ala Leu Pro Ala Ala Pro Pro Val Ala Asn Ser Ser					
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Leu Pro Cys Gly Gln Asp Ser Thr Ile Thr His Gly His Ser Tyr Pro					
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Gly Ser Thr Gln Ser Leu Ile Gln Leu Tyr Ser Asp Ile Ile Pro Glu					
435	440	445			
Glu Lys Lys Lys Lys Lys Arg Thr Arg Lys Lys Lys Arg Asp Asp Asp					
450	455	460			
Ala Glu Ser Thr Lys Ala Pro Ser Thr Pro His Ser Asp Ile Thr Ala					
465	470	475	480		
Pro Pro Thr Pro Gly Ile Ser Glu Thr Thr Ser Thr Pro Ala Val Ser					

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Gly	Val	Ser	Asp	Tyr	Tyr	Ser	Gln	Leu	Ile	Tyr	Lys	Gln	Asn	Asn	Leu	
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Ser	Asn	Pro	Pro	Thr	Pro	Pro	Ala	Ser	Leu	Pro	Pro	Thr	Pro	Pro	Pro	
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Met	Ala	Cys	Gln	Lys	Met	Ala	Asn	Gly	Phe	Ala	Thr	Thr	Glu	Glu	Leu	
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Leu Val Lys Glu Glu Pro	Pro Glu Pro Val Pro	Ser Pro Ile Ile Pro
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Ile Leu Pro Ser Thr Ala	Gly Lys Ser Ser Glu	Ser Arg Arg Asn Asp
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Ile Lys Thr Glu Pro Gly	Thr Leu Tyr Phe Ala	Ser Pro Phe Gly Pro
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Ser Pro Asn Gly Pro Arg	Ser Gly Leu Ile Ser	Val Ala Ile Thr Leu
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His Pro Thr Ala Ala Glu	Asn Ile Ser Ser Val	Val Ala Ala Phe Ser
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Asp Leu Leu His Val Arg	Ile Pro Asn Ser Tyr	Glu Val Ser Ser Ala
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Pro Asp Val Pro Ser Met	Gly Leu Val Ser Ser	His Arg Ile Asn Pro
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Ser Ala Asn Pro Pro Arg	Leu Val Ser Ser Tyr	Arg Leu Lys Gln Pro
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Asn Val Pro Phe Pro Pro	Thr Ser Asn Gly Leu	Ser Gly Tyr Lys Asp
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Ser Ser His Gly Ile Ala	Glu Ser Ala Ala Leu	Arg Pro Gln Trp Cys
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Cys His Cys Lys Val Val	Ile Leu Gly Ser Gly	Val Arg Lys Ser Phe
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Ser Leu Pro Gln Ser Pro	Met Arg Glu Thr Pro	Ser Lys Ala Phe His
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Gln Tyr Ser Asn Asn Ile	Ser Thr Leu Asp Val	His Cys Leu Pro Gln
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Pro Ala Phe Glu Ala Ala	Gln Val Glu Ala Lys	Pro Asp Glu Leu Lys
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Val Thr Val Lys Leu Lys	Pro Arg Leu Arg Ala	Val His Gly Gly Phe
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<212> PRT

<213> Homo sapiens

<400> 3990

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&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3993

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&lt;211&gt; 72

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&lt;212&gt; DNA

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&lt;213&gt; Homo sapiens

&lt;400&gt; 3997

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Leu	Leu	Gln	Leu	Ser	Phe	Ala	Ser	Ser	Gln	Arg	Asp	Leu	Phe	Glu	Asp				
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&lt;210&gt; 4000

&lt;211&gt; 606

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4000

```

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Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
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Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
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His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
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100          105          110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
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Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
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Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
145          150          155          160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
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Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
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Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
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Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
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Thr Leu Val Asn Ile Ser Pro Asp Thr Ser Leu Leu Leu Asp Cys Gly
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Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
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Arg Val Leu Gly Thr Leu Ala Ala Val Phe Val Ser His Leu His Ala
275          280          285
Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
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Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
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Ala Glu Ile Ser Ser Pro Ala Val Glu Arg Leu Ile Ser Ser Leu Leu
355          360          365
Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
385          390          395          400
Val Tyr Ser Gly Asp Thr Met Pro Cys Glu Ala Leu Val Arg Met Gly
405          410          415
Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr Leu Glu Asp Gly Leu

```





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<210> 4002

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

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Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
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Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro
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Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
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Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
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Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
			100					105					110		
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
		115					120					125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
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Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
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Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165						170					175	
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
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Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
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 Glu Gly Ser Tyr Tyr Leu Thr Thr Thr Tyr Gly Ala Leu Glu His Ile  
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 Lys Ser Tyr Asp Lys Ile Thr Val Thr Arg Gln Leu Ser Val Glu Val  
                                  340                      345                      350  
 Gln Asp Ser Ile His Arg Trp Glu Arg Arg Arg Thr Leu Asn Lys Ala  
                                  355                      360                      365  
 Arg Ala Ser Arg Ser Ser Val Gln Asp Phe Ile Cys Val Ser Tyr Leu  
                                  370                      375                      380  
 Glu Pro Glu Gln Gln Ala Arg Thr Leu Ala Ser Arg Ala Asp Thr Gln  
 385                      390                      395                      400  
 Ala Gln Ala Leu Cys Ala Gln Cys Ala Glu Lys Phe Ala Val Glu Arg  
                                  405                      410                      415  
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&lt;210&gt; 4003

&lt;211&gt; 581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4003

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&lt;210&gt; 4004

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp  
 50 55 60  
 Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser  
 65 70 75 80  
 Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile  
 85 90 95  
 Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln  
 100 105 110  
 Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg  
 115 120 125  
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<210> 4005  
 <211> 666  
 <212> DNA  
 <213> Homo sapiens

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<210> 4006  
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Met Met Lys Ala Ala Ile Ser Glu Thr Glu Asp Met Pro Met Phe Glu  
35 40 45  
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met  
50 55 60  
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile  
65 70 75 80  
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser  
85 90 95  
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu  
100 105 110  
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg  
115 120 125  
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr  
130 135 140  
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro  
145 150 155 160  
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro  
165 170 175  
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu  
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Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg  
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<210> 4007  
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<212> DNA  
<213> Homo sapiens

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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
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Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
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Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
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Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
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Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
	210					215					220				
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
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Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
			245					250					255		
Glu	Lys	Lys	Arg	Gly	Thr	Glu	Lys	Leu	Ile	Thr	Lys	Ala	Glu	Lys	Ile



			85					90				95			
Pro	Gly	Gly	Glu	Thr	Thr	Pro	Ser	Val	Thr	Asp	Leu	Leu	Asn	Tyr	Phe
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Leu	Ala	Pro	Glu	Ile	Leu	Thr	Gly	Asp	Asn	Gln	Tyr	Tyr	Cys	Glu	Asn
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Cys	Ala	Ser	Leu	Gln	Asn	Ala	Glu	Lys	Thr	Met	Gln	Ile	Thr	Glu	Glu
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Ser	Trp	Ser	Val	Asp	Val	Asp	Phe	Thr	Asp	Leu	Ser	Glu	Asn	Leu	Ala
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Lys	Lys	Leu	Lys	Pro	Ser	Gly	Thr	Asp	Glu	Ala	Ser	Cys	Thr	Lys	Leu
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Val															
225															

&lt;210&gt; 4011

&lt;211&gt; 1371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4011

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<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
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Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
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Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
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Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
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Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
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Arg Met Val Ala Leu Ser Thr Ser Arg Leu Pro Lys Asp Lys Pro Arg
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Tyr Leu Met Gly Val Gly Tyr Ala Thr Asp Leu Val Val Cys Val Ala
          275          280          285
Leu Gly Cys Asp Met Phe Asp Cys Val Phe Pro Thr Arg Thr Ala Arg
          290          295          300
Phe Gly Ser Ala Leu Val Pro Thr Gly Asn Leu Gln Leu Arg Lys Lys
305          310          315          320
Val Phe Glu Lys Asp Phe Gly Pro Ile Asp Pro Glu Cys Thr Cys Pro
          325          330          335
Thr Cys Gln Lys His Ser Arg Ala Phe Leu His Ala Leu Leu His Ser
          340          345          350
Asp Asn Thr Ala Ala Leu His His Leu Thr Val His Asn Ile Ala Tyr
          355          360          365
Gln Leu Gln Leu Met Ser Ala Val Arg Thr Ser Ile Val Glu Lys Arg
          370          375          380
Phe Pro Asp Phe Val Arg Asp Phe Met Gly Ala Met Tyr Gly Asp Pro
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Thr Leu Gly

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 <211> 1419  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4014

&lt;211&gt; 473

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4014

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 35 40 45  
 Pro Asp Arg Leu Pro Cys Gln Gln Leu Leu Gln Gln Ala Gln Ala Ala  
 50 55 60  
 Ile Pro Arg Ser Thr Ser Phe Asp Arg Lys Leu Pro Asp Gly Thr Arg  
 65 70 75 80  
 Ser Ser Pro Ser Asn Gln Ser Ser Ser Ser Asp Pro Gly Pro Gly Gly  
 85 90 95  
 Ser Gly Pro Trp Arg Pro Gln Val Gly Tyr Asp Gly Cys Gln Ser Pro  
 100 105 110  
 Leu Leu Leu Glu His Gln Gly Ser Gly Pro Leu Glu Cys Asp Gly Ala  
 115 120 125  
 Arg Glu Arg Glu Asp Thr Met Glu Ala Ser Arg His Pro Glu Thr Lys  
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<212> DNA
<213> Homo sapiens
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240
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<210> 4016

<211> 95

<212> PRT

<213> Homo sapiens

<400> 4016

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			20					25					30		
Asn	Arg	Arg	Met	Lys	Trp	Lys	Lys	Ile	Val	Leu	Gln	Gly	Gly	Gly	Leu
		35				40					45				
Glu	Ser	Pro	Thr	Lys	Pro	Lys	Gly	Arg	Pro	Lys	Lys	Asn	Ser	Ile	Pro
		50				55					60				
Thr	Ser	Glu	Gln	Leu	Thr	Glu	Gln	Glu	Arg	Ala	Lys	Asp	Ala	Glu	Lys
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<210> 4017

<211> 1521

<212> DNA

<213> Homo sapiens

<400> 4017

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&lt;210&gt; 4018

&lt;211&gt; 480

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4018

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10

15

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Val	Ala	Trp	Asp	Tyr	Gly	Arg	Leu	Ala	Leu	Val	Thr	Asp	Ala	Asp	Arg					
	50					55					60									
Leu	Arg	Arg	Gln	Glu	Arg	Asp	Arg	Val	Glu	Gln	Glu	Tyr	Val	Ala	Ser					
65					70					75					80					
Ala	Met	His	Gly	Asp	Ser	His	Asp	Arg	Tyr	Glu	Arg	Leu	Thr	Phe	Val					
				85					90					95						
Ser	Ser	Ser	Val	Asp	Phe	Asp	Gln	Arg	Asp	Asn	Gly	Phe	Cys	Ser	Trp					
			100					105				110								
Leu	Thr	Ala	Ile	Phe	Arg	Ile	Lys	Asp	Asp	Glu	Ile	Arg	Asp	Lys	Cys					
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Gly	Gly	Asp	Ala	Val	His	Tyr	Leu	Ser	Phe	Gln	Arg	His	Ile	Ile	Gly					
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Leu	Leu	Val	Val	Val	Gly	Val	Leu	Ser	Val	Gly	Ile	Val	Leu	Pro	Val					
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Thr	Thr	Ile	Ala	Asn	Leu	Lys	Ser	Gly	Asn	Asn	Leu	Leu	Trp	Leu	His					
				180				185					190							
Thr	Ser	Phe	Ala	Phe	Leu	Tyr	Leu	Leu	Leu	Thr	Val	Tyr	Ser	Met	Arg					
		195					200					205								
Arg	His	Thr	Ser	Lys	Met	Arg	Tyr	Lys	Glu	Asp	Asp	Leu	Val	Lys	Arg					
	210					215					220									
Thr	Leu	Phe	Ile	Asn	Gly	Ile	Ser	Lys	Tyr	Ala	Glu	Ser	Glu	Lys	Ile					
225					230					235				240						
Lys	Lys	His	Phe	Glu	Glu	Ala	Tyr	Pro	Asn	Cys	Thr	Val	Leu	Glu	Ala					
				245					250					255						
Arg	Pro	Cys	Tyr	Asn	Val	Ala	Arg	Leu	Met	Phe	Leu	Asp	Ala	Glu	Arg					
				260				265					270							
Lys	Lys	Ala	Glu	Arg	Gly	Lys	Leu	Tyr	Phe	Thr	Asn	Leu	Gln	Ser	Lys					
		275					280					285								
Glu	Asn	Val	Pro	Thr	Met	Ile	Asn	Pro	Lys	Pro	Cys	Gly	His	Phe	Cys					
	290					295					300									
Cys	Cys	Val	Val	Arg	Gly	Cys	Glu	Gln	Val	Glu	Ala	Ile	Glu	Tyr	Tyr					
305					310					315					320					
Thr	Lys	Leu	Glu	Gln	Lys	Leu	Lys	Glu	Asp	Tyr	Lys	Arg	Glu	Lys	Gly					
				325					330					335						
Lys	Val	Asn	Glu	Lys	Pro	Leu	Gly	Met	Ala	Phe	Val	Thr	Phe	His	Asn					
				340				345					350							
Glu	Thr	Ile	Thr	Ala	Ile	Ile	Leu	Lys	Asp	Phe	Asn	Val	Cys	Lys	Cys					
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&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4020

Cys	Asp	Gly	Gln	Pro	Asp	Cys	Ala	Asp	Gly	Ser	Asp	Glu	Trp	Asp	Cys
1				5					10					15	
Ser	Tyr	Val	Leu	Pro	Arg	Lys	Val	Ile	Thr	Ala	Ala	Val	Ile	Gly	Ser
			20					25					30		
Leu	Val	Cys	Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu	Gly	Cys	Thr	Cys	Lys
		35					40					45			
Leu	Tyr	Ala	Ile	Arg	Thr	Gln	Glu	Tyr	Ser	Ile	Phe	Ala	Pro	Leu	Ser
	50					55				60					
Arg	Met	Glu	Ala	Glu	Ile	Val	Gln	Gln	Gln	Ala	Pro	Pro	Ser	Tyr	Gly

65		70		75		80									
Gln	Leu	Ile	Ala	Gln	Gly	Ala	Ile	Pro	Pro	Val	Glu	Asp	Phe	Pro	Thr
		85						90						95	
Glu	Asn	Pro	Asn	Asp	Asn	Ser	Val	Leu	Gly	Asn	Leu	Arg	Ser	Leu	Leu
		100						105					110		
Gln	Ile	Leu	Arg	Gln	Asp	Met	Thr	Pro	Gly	Gly	Gly	Pro	Gly	Ala	Arg
		115					120					125			
Arg	Arg	Gln	Arg	Gly	Arg	Leu	Met	Arg	Arg	Leu	Val	Arg	Arg	Leu	Arg
		130				135					140				
Arg	Trp	Gly	Leu	Leu	Pro	Arg	Thr	Asn	Thr	Pro	Ala	Arg	Ala	Ser	Glu
		145			150					155				160	
Ala	Arg	Ser	Gln	Val	Thr	Pro	Ser	Ala	Ala	Pro	Leu	Glu	Ala	Leu	Asp
			165					170					175		
Gly	Gly	Thr	Gly	Pro	Ala	Arg	Glu	Gly	Gly	Ala	Val	Gly	Gly	Gln	Asp
		180					185					190			
Gly	Glu	Gln	Ala	Pro	Pro	Leu	Pro	Ile	Lys	Ala	Pro	Leu	Pro	Ser	Ala
		195				200					205				
Ser	Thr	Ser	Pro	Ala	Pro	Thr	Thr	Val	Pro	Glu	Ala	Pro	Gly	Pro	Leu
		210				215					220				
Pro	Ser	Leu	Pro	Leu	Glu	Pro	Ser	Leu	Leu	Ser	Gly	Val	Val	Gln	Ala
		225			230					235				240	
Leu	Arg	Gly	Arg	Leu	Pro	Ser	Leu	Gly	Pro	Pro	Gly	Pro	Thr	Arg	
			245					250					255		
Ser	Pro	Pro	Gly	Pro	His	Thr	Ala	Val	Leu	Ala	Leu	Glu	Asp	Glu	Asp
			260				265					270			
Asp	Val	Leu	Leu	Val	Pro	Leu	Ala	Glu	Pro	Gly	Val	Trp	Val	Ala	Glu
		275				280						285			
Ala	Glu	Asp	Glu	Pro	Leu	Leu	Thr								
		290				295									

&lt;210&gt; 4021

&lt;211&gt; 4209

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4021

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2160









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5193

&lt;210&gt; 4024

&lt;211&gt; 1690

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4024

Xaa Arg Val Lys Gly Met Ala Phe Ser Pro Asp Ser Thr Lys Ile Ala

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Ile Gly Gln Thr Asp Asn Ile Ile Tyr Val Tyr Lys Ile Gly Glu Asp			
20	25	30	
Trp Gly Asp Lys Lys Val Ile Cys Asn Lys Phe Ile Gln Thr Ser Ala			
35	40	45	
Val Thr Cys Leu Gln Trp Pro Ala Glu Tyr Ile Ile Val Phe Gly Leu			
50	55	60	
Ala Glu Gly Lys Val Arg Leu Ala Asn Thr Lys Thr Asn Lys Ser Ser			
65	70	75	80
Thr Ile Tyr Gly Thr Glu Ser Tyr Val Val Ser Leu Thr Thr Asn Cys			
85	90	95	
Ser Gly Lys Gly Ile Leu Ser Gly His Ala Asp Gly Thr Ile Val Arg			
100	105	110	
Tyr Phe Phe Asp Asp Glu Gly Ser Gly Glu Ser Gln Gly Lys Leu Val			
115	120	125	
Asn His Pro Cys Pro Pro Tyr Ala Leu Ala Trp Ala Thr Asn Ser Ile			
130	135	140	
Val Ala Ala Gly Cys Asp Arg Lys Ile Val Ala Tyr Gly Lys Glu Gly			
145	150	155	160
His Met Leu Gln Thr Phe Asp Tyr Ser Arg Asp Pro Gln Glu Arg Glu			
165	170	175	
<del>Phe Thr Thr Ala Val Ser Ser Pro Gly Gly Gln Ser Val Val Leu Gly</del>			
180	185	190	
Ser Tyr Asp Arg Leu Arg Val Phe Asn Trp Ile Pro Arg Arg Ser Ile			
195	200	205	
Trp Glu Glu Ala Lys Pro Lys Glu Ile Thr Asn Leu Tyr Thr Ile Thr			
210	215	220	
Ala Leu Ala Trp Lys Arg Asp Gly Ser Arg Leu Cys Val Gly Thr Leu			
225	230	235	240
Cys Gly Gly Val Glu Gln Phe Asp Cys Cys Leu Arg Arg Ser Ile Tyr			
245	250	255	
Lys Asn Lys Phe Glu Leu Thr Tyr Val Gly Pro Ser Gln Val Ile Val			
260	265	270	
Lys Asn Leu Ser Ser Gly Thr Arg Val Val Leu Lys Ser His Tyr Gly			
275	280	285	
Tyr Glu Val Glu Glu Val Lys Ile Leu Gly Lys Glu Arg Tyr Leu Val			
290	295	300	
Ala His Thr Ser Glu Thr Leu Leu Leu Gly Asp Leu Asn Thr Asn Arg			
305	310	315	320
Leu Ser Glu Ile Ala Trp Gln Gly Ser Gly Gly Asn Glu Lys Tyr Phe			
325	330	335	
Phe Glu Asn Glu Asn Val Cys Met Ile Phe Asn Ala Gly Glu Leu Thr			
340	345	350	
Leu Val Glu Tyr Gly Asn Asn Asp Thr Leu Gly Ser Val Arg Thr Glu			
355	360	365	
Phe Met Asn Pro His Leu Ile Ser Val Arg Ile Asn Glu Arg Cys Gln			
370	375	380	
Arg Gly Thr Glu Asp Asn Lys Lys Leu Ala Tyr Leu Ile Asp Ile Lys			
385	390	395	400
Thr Ile Ala Ile Val Asp Leu Ile Gly Gly Tyr Asn Ile Gly Thr Val			
405	410	415	
Ser His Glu Ser Arg Val Asp Trp Leu Glu Leu Asn Glu Thr Gly His			
420	425	430	
Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr Asp Ile			

435				440				445							
Glu	Ser	Cys	Ser	Lys	Thr	Met	Ile	Leu	Asn	Phe	Cys	Ser	Tyr	Met	Gln
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Trp	Val	Pro	Gly	Ser	Asp	Val	Leu	Val	Ala	Gln	Asn	Arg	Asn	Ser	Leu
465					470					475					480
Cys	Val	Trp	Tyr	Asn	Ile	Glu	Ala	Pro	Glu	Arg	Val	Thr	Met	Phe	Thr
				485					490					495	
Ile	Arg	Gly	Asp	Val	Ile	Gly	Leu	Glu	Arg	Gly	Gly	Gly	Lys	Thr	Glu
			500					505					510		
Val	Met	Val	Met	Glu	Gly	Val	Thr	Thr	Val	Ala	Tyr	Thr	Leu	Asp	Glu
			515				520					525			
Gly	Leu	Ile	Glu	Phe	Gly	Thr	Ala	Ile	Asp	Asp	Gly	Asn	Tyr	Ile	Arg
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Ala	Thr	Ala	Phe	Leu	Glu	Thr	Leu	Glu	Met	Thr	Pro	Glu	Thr	Glu	Ala
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Met	Trp	Lys	Thr	Leu	Ser	Lys	Leu	Ala	Leu	Glu	Ala	Arg	Gln	Leu	His
				565					570					575	
Ile	Ala	Glu	Arg	Cys	Phe	Ser	Ala	Leu	Gly	Gln	Val	Ala	Lys	Ala	Arg
			580					585					590		
Phe	Leu	His	Glu	Thr	Asn	Glu	Ile	Ala	Asp	Gln	Val	Ser	Arg	Glu	Tyr
		595				600						605			
Gly	Gly	Glu	Gly	Thr	Asp	Phe	Tyr	Gln	Val	Arg	Ala	Arg	Leu	Ala	Met
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Leu	Glu	Lys	Asn	Tyr	Lys	Leu	Ala	Glu	Met	Ile	Phe	Leu	Glu	Gln	Asn
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Ala	Val	Glu	Glu	Ala	Met	Gly	Met	Tyr	Gln	Glu	Leu	His	Arg	Trp	Asp
				645					650					655	
Glu	Cys	Ile	Ala	Val	Ala	Glu	Ala	Lys	Gly	His	Pro	Ala	Leu	Glu	Lys
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Leu	Arg	Arg	Ser	Tyr	Tyr	Gln	Trp	Leu	Met	Asp	Thr	Gln	Gln	Glu	Glu
		675				680					685				
Arg	Ala	Gly	Glu	Leu	Gln	Glu	Ser	Gln	Gly	Asp	Gly	Leu	Ala	Ala	Ile
690					695					700					
Ser	Leu	Tyr	Leu	Lys	Ala	Gly	Leu	Pro	Ala	Lys	Ala	Ala	Arg	Leu	Val
705				710					715						720
Leu	Thr	Arg	Glu	Glu	Leu	Leu	Ala	Asn	Thr	Glu	Leu	Val	Glu	His	Ile
			725					730					735		
Thr	Ala	Ala	Leu	Ile	Lys	Gly	Glu	Leu	Tyr	Glu	Arg	Ala	Gly	Asp	Leu
		740				745					750				
Phe	Glu	Lys	Ile	His	Asn	Pro	Gln	Lys	Ala	Leu	Glu	Cys	Tyr	Arg	Lys
		755			760					765					
Gly	Asn	Ala	Phe	Met	Lys	Ala	Val	Glu	Leu	Ala	Arg	Leu	Ala	Phe	Pro
770					775					780					
Val	Glu	Val	Val	Lys	Leu	Glu	Glu	Ala	Trp	Gly	Asp	His	Leu	Val	Gln
785				790					795						800
Gln	Lys	Gln	Leu	Asp	Ala	Ala	Ile	Asn	His	Tyr	Ile	Glu	Ala	Arg	Cys
			805					810					815		
Ser	Ile	Lys	Ala	Ile	Glu	Ala	Ala	Leu	Gly	Ala	Arg	Gln	Trp	Lys	Lys
			820					825				830			
Ala	Ile	Tyr	Ile	Leu	Asp	Leu	Gln	Asp	Arg	Asn	Thr	Ala	Ser	Lys	Tyr
		835				840					845				
Tyr	Pro	Leu	Val	Ala	Gln	His	Tyr	Ala	Ser	Leu	Gln	Glu	Tyr	Glu	Ile
850					855						860				
Ala	Glu	Glu	Leu	Tyr	Thr	Lys	Gly	Asp	Arg	Thr	Lys	Asp	Ala	Ile	Asp

865                      870                      875                      880  
 Met Tyr Thr Gln Ala Gly Arg Trp Glu Gln Ala His Lys Leu Ala Met  
                                  885                      890                      895  
 Lys Cys Met Arg Pro Glu Asp Val Ser Val Leu Tyr Ile Thr Gln Ala  
                                  900                      905                      910  
 Gln Glu Met Glu Lys Gln Gly Lys Tyr Arg Glu Ala Glu Arg Leu Tyr  
                                  915                      920                      925  
 Val Thr Val Gln Glu Pro Asp Leu Ala Ile Thr Met Tyr Lys Lys His  
                                  930                      935                      940  
 Lys Leu Tyr Asp Asp Met Ile Arg Leu Val Gly Lys His His Pro Asp  
 945                      950                      955                      960  
 Leu Leu Ser Asp Thr His Leu His Leu Gly Lys Glu Leu Glu Ala Glu  
                                  965                      970                      975  
 Gly Arg Leu Gln Glu Ala Glu Tyr His Tyr Leu Glu Ala Gln Glu Trp  
                                  980                      985                      990  
 Lys Ala Thr Val Asn Met Tyr Arg Ala Ser Gly Leu Trp Glu Glu Ala  
                                  995                      1000                      1005  
 Tyr Arg Val Ala Arg Thr Gln Gly Gly Ala Asn Ala His Lys His Val  
                                  1010                      1015                      1020  
 Ala Tyr Leu Trp Ala Lys Ser Leu Gly Gly Glu Ala Ala Val Arg Leu  
 1025                      1030                      1035                      1040  
~~Leu Asn Lys Leu Gly Leu Leu Glu Ala Ala Val Asp His Ala Ala Asp~~  
                                  1045                      1050                      1055  
 Asn Cys Ser Phe Glu Phe Ala Phe Glu Leu Ser Arg Leu Ala Leu Lys  
                                  1060                      1065                      1070  
 His Lys Thr Pro Glu Val His Leu Lys Tyr Ala Met Phe Leu Glu Asp  
                                  1075                      1080                      1085  
 Glu Gly Lys Phe Glu Glu Ala Glu Ala Glu Phe Ile Arg Ala Gly Lys  
                                  1090                      1095                      1100  
 Pro Lys Glu Ala Val Leu Met Phe Val His Asn Gln Asp Trp Glu Ala  
 1105                      1110                      1115                      1120  
 Ala Gln Arg Val Ala Glu Ala His Asp Pro Asp Ser Val Ala Glu Val  
                                  1125                      1130                      1135  
 Leu Val Gly Gln Ala Arg Gly Ala Leu Glu Glu Lys Asp Phe Gln Lys  
                                  1140                      1145                      1150  
 Ala Glu Gly Leu Leu Leu Arg Ala Gln Arg Pro Gly Leu Ala Leu Asn  
                                  1155                      1160                      1165  
 Tyr Tyr Lys Glu Ala Gly Leu Trp Ser Asp Ala Leu Arg Ile Cys Lys  
                                  1170                      1175                      1180  
 Asp Tyr Val Pro Ser Gln Leu Glu Ala Leu Gln Glu Glu Tyr Glu Arg  
 1185                      1190                      1195                      1200  
 Glu Ala Thr Lys Lys Gly Ala Arg Gly Val Glu Gly Phe Val Glu Gln  
                                  1205                      1210                      1215  
 Ala Arg His Trp Glu Gln Ala Gly Glu Tyr Ser Arg Ala Val Asp Cys  
                                  1220                      1225                      1230  
 Tyr Leu Lys Val Arg Asp Ser Gly Asn Ser Gly Leu Ala Glu Lys Cys  
                                  1235                      1240                      1245  
 Trp Met Lys Ala Ala Glu Leu Ser Ile Lys Phe Leu Pro Pro Gln Arg  
                                  1250                      1255                      1260  
 Asn Met Glu Val Val Leu Ala Val Gly Pro Gln Leu Ile Gly Ile Gly  
 1265                      1270                      1275                      1280  
 Lys His Ser Ala Ala Ala Glu Leu Tyr Leu Asn Leu Asp Leu Val Lys  
                                  1285                      1290                      1295  
 Glu Ala Ile Asp Ala Phe Ile Glu Gly Glu Glu Trp Asn Lys Ala Lys

1300 1305 1310  
 Arg Val Ala Lys Glu Leu Asp Pro Arg Tyr Glu Asp Tyr Val Asp Gln  
 1315 1320 1325  
 His Tyr Lys Glu Phe Leu Lys Asn Gln Gly Lys Val Asp Ser Leu Val  
 1330 1335 1340  
 Gly Val Asp Val Ile Ala Ala Leu Asp Leu Tyr Val Glu Gln Gly Gln  
 1345 1350 1355 1360  
 Trp Asp Lys Cys Ile Glu Thr Ala Thr Lys Gln Asn Tyr Lys Ile Leu  
 1365 1370 1375  
 His Lys Tyr Val Ala Leu Tyr Ala Thr His Leu Ile Arg Glu Gly Ser  
 1380 1385 1390  
 Ser Ala Gln Ala Leu Ala Leu Tyr Val Gln His Gly Ala Pro Ala Asn  
 1395 1400 1405  
 Pro Gln Asn Phe Asn Ile Tyr Lys Arg Ile Phe Thr Asp Met Val Ser  
 1410 1415 1420  
 Ser Pro Gly Thr Asn Cys Ala Glu Ala Tyr His Ser Trp Ala Asp Leu  
 1425 1430 1435 1440  
 Arg Asp Val Leu Phe Asn Leu Ala Val Leu Ser Pro Ser Ser Ser Val  
 1445 1450 1455  
 Lys Thr Trp Lys Ser Ser Glu Ala Asn Ser Pro Ala His Glu Glu Phe  
 1460 1465 1470  
~~Lys Thr Met Leu Leu Ile Ala His Tyr Tyr Ala Thr Arg Ser Ala Ala~~  
 1475 1480 1485  
 Gln Ser Val Lys Gln Leu Glu Thr Val Ala Ala Arg Leu Ser Val Ser  
 1490 1495 1500  
 Leu Leu Arg His Thr Gln Leu Leu Pro Val Asp Lys Ala Phe Tyr Glu  
 1505 1510 1515 1520  
 Ala Gly Ile Ala Ala Lys Ala Val Gly Trp Asp Asn Met Ala Phe Ile  
 1525 1530 1535  
 Phe Leu Asn Arg Phe Leu Asp Leu Thr Asp Ala Ile Glu Glu Gly Thr  
 1540 1545 1550  
 Leu Asp Gly Leu Asp His Ser Asp Phe Gln Asp Thr Asp Ile Pro Phe  
 1555 1560 1565  
 Glu Val Pro Leu Pro Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu  
 1570 1575 1580  
 Glu Val Arg Asp Trp Val Leu Thr Val Ser Met Asp Gln Arg Leu Glu  
 1585 1590 1595 1600  
 Gln Val Leu Pro Arg Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val  
 1605 1610 1615  
 Ala Ala Ser Thr Gly Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr  
 1620 1625 1630  
 Pro Ile Leu Arg Asn Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala  
 1635 1640 1645  
 Asn Lys Asp Asn Trp Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His  
 1650 1655 1660  
 Ser Pro Val Cys Gln Asp Val Leu Lys Phe Ile Ser Gln Trp Cys Gly  
 1665 1670 1675 1680  
 Gly Leu Pro Ser Thr Ser Phe Ser Phe Gln  
 1685 1690

&lt;210&gt; 4025

&lt;211&gt; 908

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4025

ttaagaactc acactggann gaaaccctat gaatgcaatc actgtgggaa agcatttagt  
 60  
 gatccctcat cccttagact gcatttgaga attcactctg gagaaaaacc ctatgaatgt  
 120  
 aaccagtgtt ttcacgtttt ccgcaccagt tgtaacctta aaagccacaa gaggattcac  
 180  
 acggggggaga atcaccatga atgtaatcag tgtggaaaag ctttcagcac aaggctcctct  
 240  
 ctcaactgggc acaattgcat tcatacaggg gagaaacctt atgaatgtaa ggaatgtggg  
 300  
 aaaaccttta tgtataatc atcccttatt caacatctga gaactcatac tggagagaaa  
 360  
 ccctatgaat gtaaggagtg tgggaaagcc tttaggcaac attcacacct tgtcacacac  
 420  
 cagaaaatcc atactggaga gaagccctat cagtgcactg aatgtgggaa agccttcagg  
 480  
 cggcggttcac tccttattca acatcggaga attcatagtg gtgagaagcc ctatgaatgt  
 540  
 aaggaatgtg ggaagctctt catttggcgc acagctttcc tcaaacaatca gagcctgcat  
 600

gctggagaga aacttgaaga atgtgagaaa nnaccttcag caaggatgag gagcttaggg  
 660  
 gagnagcaga aaattcacca agaagagaaa gcttattgggt gtaatcagtg tggtagggct  
 720  
 ttccagggca gctcagacct catcggacat caggtaactc atacaggaga gaaaccatat  
 780  
 gaatgtaaag aatgtggana aactttcaat cagagctcag accttctgag acatcataga  
 840  
 attcacagtg gagaaaaacc ttatgtatgc aacaaatgtg ggaaatcttt taggggcagc  
 900  
 tcagatct  
 908

&lt;210&gt; 4026

&lt;211&gt; 302

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4026

Leu	Arg	Thr	His	Thr	Gly	Xaa	Lys	Pro	Tyr	Glu	Cys	Asn	His	Cys	Gly
1				5					10					15	
Lys	Ala	Phe	Ser	Asp	Pro	Ser	Ser	Leu	Arg	Leu	His	Leu	Arg	Ile	His
			20					25					30		
Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Gln	Cys	Phe	His	Val	Phe	Arg
			35				40					45			
Thr	Ser	Cys	Asn	Leu	Lys	Ser	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Asn
			50				55				60				
His	His	Glu	Cys	Asn	Gln	Cys	Gly	Lys	Ala	Phe	Ser	Thr	Arg	Ser	Ser
65				70				75						80	
Leu	Thr	Gly	His	Asn	Cys	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys
			85				90						95		
Lys	Glu	Cys	Gly	Lys	Thr	Phe	Met	Tyr	Asn	Ser	Ser	Leu	Ile	Gln	His

100	105	110
Leu Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly		
115	120	125
Lys Ala Phe Arg Gln His Ser His Leu Val Thr His Gln Lys Ile His		
130	135	140
Thr Gly Glu Lys Pro Tyr Gln Cys Thr Glu Cys Gly Lys Ala Phe Arg		
145	150	155
Arg Arg Ser Leu Leu Ile Gln His Arg Arg Ile His Ser Gly Glu Lys		
165	170	175
Pro Tyr Glu Cys Lys Glu Cys Gly Lys Leu Phe Ile Trp Arg Thr Ala		
180	185	190
Phe Leu Lys His Gln Ser Leu His Ala Gly Glu Lys Leu Glu Glu Cys		
195	200	205
Glu Lys Xaa Pro Ser Ala Arg Met Arg Ser Leu Gly Glu Xaa Gln Lys		
210	215	220
Ile His Gln Glu Glu Lys Ala Tyr Trp Cys Asn Gln Cys Gly Arg Ala		
225	230	235
Phe Gln Gly Ser Ser Asp Leu Ile Gly His Gln Val Thr His Thr Gly		
245	250	255
Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Xaa Thr Phe Asn Gln Ser		
260	265	270
-----Ser Asp Leu Arg His His Arg Ile His Ser Gly Glu Lys Pro Tyr		
275	280	285
Val Cys Asn Lys Cys Gly Lys Ser Phe Arg Gly Ser Ser Asp		
290	295	300

&lt;210&gt; 4027

&lt;211&gt; 941

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4027

gcgcgccagg gaacctatat ctgtgaaatc cgcctcaaag gggagagcca ggtgttcaag  
60  
aaggcgggtgg tactgcatgt gcttccagag gagcccaaag agctcatggt ccatgtgggt  
120  
ggattgattc agatgggatg tgttttccag agcacagaag tgaaacacgt gaccaaggta  
180  
gaatggatat tttcaggacg gcgcgcaaag gaggagattg tatttcgtta ctaccacaaa  
240  
ctcaggatgt ctgcggagta ctcccagagc tggggccact tccagaatcg tgtgaacctg  
300  
gtgggggaca ttttcgcaa tgacggttcc atcatgcttc aaggagttag ggagtcagat  
360  
ggaggaaact acacctgcag tatccaccta gggaaacctgg tgttcaagaa aaccattgtg  
420  
ctgcatgtca gcccggaaga gcctcgaaca ctggtgaccc cggcagccct gaggcctctg  
480  
gtcttgggtg gtaatcagtt ggtgatcatt gtgggaattg tctgtgccac aatcctgctg  
540  
ctccctgttc tgatattgat cgtgaagaag acctgtggaa ataagagttc agtgaattct  
600  
acagtcttgg tgaagaacac gaagaagact aatccagaga tgaaagaaaa accctgccat  
660



tttgaaagat gtgaagggga ggtgaacaca cgcttcagcc taaaacacta agtagatgca  
 720  
 ggcttgggcc gttctcatat ccccggaac catatcttac ccattgtatg tcgcagcttg  
 780  
 caggccagtg cttggcacag agcagggact caggaagcct ttgtcactaa agtaagagcc  
 840  
 tctgcggagt acagtgcatt gggctggctg ggacaccccc aggcagcaga tcctgggtatt  
 900  
 gggctgagga aagagcactg cgcttggagt cagtaagatc t  
 941

<210> 4028

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

Ala Arg Gln Gly Thr Tyr Ile Cys Glu Ile Arg Leu Lys Gly Glu Ser  
 1 5 10 15  
 Gln Val Phe Lys Lys Ala Val Val Leu His Val Leu Pro Glu Glu Pro  
 20 25 30  
~~Lys Glu Leu Met Val His Val Gly Gly Leu Ile Gln Met Gly Cys Val~~  
~~35 40 45~~  
 Phe Gln Ser Thr Glu Val Lys His Val Thr Lys Val Glu Trp Ile Phe  
 50 55 60  
 Ser Gly Arg Arg Ala Lys Glu Glu Ile Val Phe Arg Tyr Tyr His Lys  
 65 70 75 80  
 Leu Arg Met Ser Ala Glu Tyr Ser Gln Ser Trp Gly His Phe Gln Asn  
 85 90 95  
 Arg Val Asn Leu Val Gly Asp Ile Phe Arg Asn Asp Gly Ser Ile Met  
 100 105 110  
 Leu Gln Gly Val Arg Glu Ser Asp Gly Gly Asn Tyr Thr Cys Ser Ile  
 115 120 125  
 His Leu Gly Asn Leu Val Phe Lys Lys Thr Ile Val Leu His Val Ser  
 130 135 140  
 Pro Glu Glu Pro Arg Thr Leu Val Thr Pro Ala Ala Leu Arg Pro Leu  
 145 150 155 160  
 Val Leu Gly Gly Asn Gln Leu Val Ile Ile Val Gly Ile Val Cys Ala  
 165 170 175  
 Thr Ile Leu Leu Leu Pro Val Leu Ile Leu Ile Val Lys Lys Thr Cys  
 180 185 190  
 Gly Asn Lys Ser Ser Val Asn Ser Thr Val Leu Val Lys Asn Thr Lys  
 195 200 205  
 Lys Thr Asn Pro Glu Met Lys Glu Lys Pro Cys His Phe Glu Arg Cys  
 210 215 220  
 Glu Gly Glu Val Asn Thr Arg Phe Ser Leu Lys His  
 225 230 235

<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 60  
 gtgggagccg ccgcgctccg ggctgccgct gtgggccgag ggccctcacct tcttctactg  
 120  
 ctacatgctg ctgctgggtgc tgccgtgcgt ggcgctcagc gaggtcagca tgcaggggcga  
 180  
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt  
 240  
 ggtggggccgt gctggcgcgcg gccgccaaca tggcgctggt ccgggacagc cgtgtctcgg  
 300  
 ccattcttctg cggcaaaaac gtggtggcgcg tcgccaccaaa ggctgcacc tnnctctgga  
 360  
 gtaccgcccgc caggtgcgcg acttcccnng ccgcctgcgc tatcactgga gctgcagccg  
 420  
 ccacccccgc agcgcaactc ggtgccgccc ccgcgcccgc cgctgcacgg ccgcctggg  
 480  
 ncgccccac atgtctctgc caacgcgtga cccctggac acgtgacagg gcccgcgcg  
 540  
 ccccccacac gccctgggg cgagagaca ccgggttggc ttggggcgcg cggtttgcac  
 600  
 gggatgggggt gggggcgggc tcccctaggg acaggtgcct cgagtgcctg tgctgggggt  
 660  
 cccgcggcgc cttcttcacg tcaggaatct ctgcgaccgc ggatcctcag ccccgctcc  
 720  
 accagcccgc ccagcgcgt gggctctgtt gggaggcctg ggccggagca gagcagaggt  
 780  
 gatccggccc ctgcctgctg ggccgcccgg gttggaaggg agggcagtgt gggcggagat  
 840  
 ctgctccttc ggtggggggc tctggctcag atttggggcc aaggaggcct ctgtcatttt  
 900  
 aaagactcg  
 909

&lt;210&gt; 4030

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4030

Arg	Pro	Pro	Val	Leu	Gly	Gly	Ala	Gly	Pro	Ala	Gly	Pro	Ala	Gly	His
1				5				10					15		
Ala	Gly	Gln	Pro	Val	Gly	Ala	Ala	Ala	Leu	Arg	Ala	Ala	Ala	Val	Gly
			20					25					30		
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala
			35				40					45			
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
			50				55					60			
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
65					70					75				80	
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
			85						90					95	
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
			100					105					110		
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Pro	Gly	Ala	Arg	Leu

115	120	125
Pro Xaa Pro Pro Ala Leu Ser Leu Glu Leu Gln Pro Pro Pro Pro Gln		
130	135	140
Arg Asn Ser Val Pro Pro Pro Pro Pro Pro Leu His Gly Pro Pro Gly		
145	150	155
Xaa Pro Pro His Val Leu Ala His Ala		160
165		

<210> 4031  
 <211> 1406  
 <212> DNA  
 <213> Homo sapiens

<400> 4031  
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 60  
 ctcaggaaag aaattgcagg cttcgaacaa cagaaagcaa aagaattagc tcgaatagaa  
 120  
 gaggtttaaaa aggaggagat gaggaagcta caaaaggaac gtaaagtttt tgaaaagtat  
 180  
 actacagctg caagaacttt tccagataaa aagggaacgtg aagaataca gactttaaaa  
 240  
 cagcaaatac cagattttacg ggaagatttg aaaagaaagg agaccaaatg gtcaagtaca  
 300  
 cacagccgtc tcagaagcca gatacaaatg ttagtcagag agaacacaga cctccgggaa  
 360  
 gaaataaaaag tgatggaaaag attccgactg gatgcctgga agagagcaga agccatagag  
 420  
 agcagcctcg aggtggagaa gaaggacaag cttgcgaaca catctgttcg atttcaaaac  
 480  
 agtcagattt cttcaggaac ccaggtagaa aaatacaaga aaaattatct tccaatgcaa  
 540  
 ggcaatccac ctcgaagatc caagtctgca cctcctcgtg atttaggcaa tttggataag  
 600  
 ggacaggctg cctctcccag ggagccactt gaaccactga acttcccaga tcttgaatat  
 660  
 aaagaggagg aggaagacca agacatacag ggagaaatca gtcacactga tggaaagggtg  
 720  
 gaaaagggtt ataagaatgg gtgccgtggt atactgtttc ccaatggaac tcgaaaggaa  
 780  
 gtgagtgcag atgggaagac catcactgtc actttcttta atggtgacgt gaagcagggtc  
 840  
 atgccagacc aaagagtgat ctactactat gcagctgccc agaccactca cagcacatac  
 900  
 ccggaggggac tggaagtctt acattttctca agtggacaaa tagaaaaaca ttaccagat  
 960  
 ggaagaaaaag aaatcacgtt tctgaccag actgttaaaa acttatttcc tgatggacaa  
 1020  
 gaagaaagca ttttcccaga tggtaacaatt gtcagagtac aacgtgatgg caacaaactc  
 1080  
 atagagttta ataatggcca aagagaacta catactgccc agttcaagag acgggaatac  
 1140  
 ccagatggca ctgttaaaac cgtatatgca aacggtcatc aagaaacgaa gtacagatcc  
 1200

ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga  
 1260  
 tcctcatgtg atcatgaagt aacagtaact gactttttat gttaaaaaat gtacatttac  
 1320  
 tgtggattct gtttaattta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa  
 1380  
 gtttaccctg tggcaaaaaa aaaaaa  
 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

Xaa	Ala	Glu	Asn	Ala	Ser	Leu	Ala	Lys	Leu	Arg	Ile	Glu	Arg	Glu	Ser
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Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys
		20					25					30			
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg
	35					40					45				
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
50					55					60					
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65				70				75						80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
		85					90						95		
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
		100					105						110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
	115						120					125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
	130				135						140				
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145				150				155						160	
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
		165					170							175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
		180					185						190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
	195						200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
	210				215						220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225				230						235				240	
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
		245						250						255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
	260						265						270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
	275						280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu
	290				295						300				
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp

305                      310                      315                      320  
 Gly Arg Lys Glu Ile Thr Phe Pro Asp Gln Thr Val Lys Asn Leu Phe  
                                  325                      330                      335  
 Pro Asp Gly Gln Glu Glu Ser Ile Phe Pro Asp Gly Thr Ile Val Arg  
                                  340                      345                      350  
 Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg  
                                  355                      360                      365  
 Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr  
                                  370                      375                      380  
 Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser  
 385                      390                      395                      400  
 Gly Arg Ile Arg Val Lys Asp Lys Glu Gly Asn Val Leu Met Asp Thr  
                                  405                      410                      415  
 Glu Leu

<210> 4033  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

-----<400> 4033-----  
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 ggggttttgat gggatagcag acaggtggat tgcagagctc cggaagacc cagccgggtg  
 120  
 tcaagaagag ccctcctagt ttggcctcta actggctgtg cgaccccagg caggtcactt  
 180  
 gtccctctctg ggaagcagct gaataatgaa cactgggact ttcccaggct ggcttctcac  
 240  
 tgcagagcag aggaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac  
 300  
 aacttccacg gccggccctc aatggcttcc tttctctccc acaagagcgc tgggccaagc  
 360  
 cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgtea  
 420  
 ggaccagacg ggaggcctgg cgccccgcc cgccatgtgt ggggagcggg cctctccaag  
 480  
 ccagtcc  
 487

<210> 4034  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 4034  
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   1                                  5                                  10                                  15  
 Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr  
                                   20                                  25                                  30  
 Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala  
                                   35                                  40                                  45  
 Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

50 55 60  
 Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro  
 65 70 75 80  
 Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser  
 85 90

<210> 4035  
 <211> 343  
 <212> DNA  
 <213> Homo sapiens

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 tcctatggga gggacaaact ctcagaaaat agcaagagta ttttggaaat ctatctgagg  
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 tataaacact cagaacctca tagcagtgtt caggaatcct atgtgagggga caaacattca  
 240  
 gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc  
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 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 4036  
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 Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser  
 35 40 45  
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser  
 50 55 60  
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser  
 65 70 75 80  
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser  
 85 90 95  
 Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser  
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<210> 4037  
 <211> 741  
 <212> DNA  
 <213> Homo sapiens

<400> 4037

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 420  
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 <211> 134  
 <212> PRT  
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 35 40 45  
 Val Ala Pro Ala Val Gln Glu Lys Lys Val Lys Lys Arg Val Ser Phe  
 50 55 60  
 Ala Asp Asn Gln Gly Leu Ala Leu Thr Met Val Lys Val Phe Ser Glu  
 65 70 75 80  
 Phe Asp Asp Pro Leu Asp Met Pro Phe Asn Ile Thr Glu Leu Leu Asp  
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 Asn Ile Val Ser Leu Thr Thr Ala Glu Ser Glu Ser Phe Val Leu Asp  
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 Ala Asp His Val Cys Leu  
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<210> 4039  
 <211> 1503

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4039

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<211> 100  
<212> PRT  
<213> Homo sapiens

<400> 4040  
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35 40 45  
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser  
50 55 60  
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser  
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<210> 4041  
<211> 573  
<212> DNA  
<213> Homo sapiens

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<210> 4042  
<211> 191  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4042

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Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
          35           40           45
Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
          50           55           60
Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
          65           70           75           80
Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
          85           90           95
Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
          100          105          110
Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
          115          120          125
Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
          130          135          140
-----Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
          145          150          155          160
Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
          165          170          175
Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
          180          185          190

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&lt;210&gt; 4043

&lt;211&gt; 744

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4043

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600

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 Arg Lys Glu Glu Leu Arg Arg Lys Ala Leu Glu Glu Lys Arg Arg  
 35 40 45  
 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys  
 50 55 60  
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn  
 65 70 75 80  
 Gly Ile Pro Ile Glu Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser  
 85 90 95  
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn  
 100 105 110  
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu  
 115 120 125  
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys  
 130 135 140  
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Leu Arg Leu Ala Glu  
 145 150 155 160  
 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu  
 165 170 175  
 Glu Arg Pro Met Thr Ala Glu Glu Leu Arg Glu Arg Glu Phe Leu Glu  
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<210> 4045  
 <211> 2217  
 <212> DNA  
 <213> Homo sapiens

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<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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 20 25 30  
 His Leu Gln Asn Leu Glu Asn Ser Ala Phe Thr Ala Asp Arg His Lys  
 35 40 45  
 Lys Arg Lys Leu Leu Glu Asn Ser Thr Leu Asn Ser Lys Leu Leu Lys  
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 Val Asn Gly Ser Thr Thr Ala Ile Cys Ala Thr Gly Leu Arg Asn Leu  
 65 70 75 80  
 Gly Asn Thr Cys Phe Met Asn Ala Ile Leu Gln Ser Leu Ser Asn Ile  
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 100 105 110  
 Asn Gly Lys Thr Ala Gly Arg Arg Thr Tyr His Thr Arg Ser Gln Gly  
 115 120 125  
 Asp Asn Asn Val Ser Leu Val Glu Glu Phe Arg Lys Thr Leu Cys Ala  
 130 135 140  
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 Val Val Trp Lys Ile Met Pro Asn Phe Arg Gly Tyr Gln Gln Gln Asp  
 165 170 175  
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 180 185 190  
 Phe Arg Ala Val Ser Thr Val Phe Pro Ala Gln Gln Phe Cys Arg Arg  
 195 200 205  
 Ile Leu Leu Cys Leu Gln Val Xaa Lys Cys Cys Ile Asn Gly Ala Ser  
 210 215 220  
 Thr Val Val Thr Ala Ile Phe Gly Gly Ile Leu Gln Asn Glu Val Asn  
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 Cys Leu Ile Cys Gly Thr Glu Ser Arg Lys Phe Asp Pro Phe Leu Asp  
 245 250 255  
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Cys	Lys	Xaa	Lys	Gln	Lys	Ser	Thr	Lys	Lys	Phe	Trp	Ile	Gln	Lys	Leu
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Pro	Lys	Val	Leu	Cys	Leu	His	Leu	Lys	Arg	Phe	His	Trp	Thr	Ala	Tyr
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Asp	Met	Lys	Cys	Tyr	Leu	Leu	Asp	Pro	Glu	Asn	Ser	Gly	Pro	Glu	Ser
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Cys	Leu	Tyr	Asp	Leu	Ala	Ala	Val	Val	Val	His	His	Gly	Ser	Gly	Val
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Gly	Ser	Gly	His	Tyr	Thr	Ala	Tyr	Ala	Thr	His	Glu	Gly	Arg	Trp	Phe
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His	Phe	Asn	Asp	Ser	Thr	Val	Thr	Leu	Thr	Asp	Glu	Glu	Thr	Val	Val
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Lys	Ala	Lys	Ala	Asn	Ile	Leu	Phe	Tyr	Val	Glu	His	Gln	Ala	Lys	Ala
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Gly	Ser	Asp	Lys	Leu											
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 <212> DNA  
 <213> Homo sapiens

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<210> 4048  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 4048  
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 Val Ala Ile Gly Phe Thr Gly Gly Leu Val Phe Met Tyr Val Gln Cys  
 35 40 45  
 Lys Val Tyr Val Gln Leu Trp Arg Arg Leu Lys Ala Tyr Asn Arg Val  
 50 55 60  
 Ile Phe Val Gln Asn Cys Pro Asp Thr Ala Lys Lys Leu Glu Lys Asn  
 65 70 75 80  
 Phe-Ser-Cys-Asn-Val-Asn-Thr-Asp-Ile-Lys-Asp-Ala-Val-Val-Val-Pro  
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<210> 4049  
 <211> 1211  
 <212> DNA  
 <213> Homo sapiens

<400> 4049  
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 8458

<210> 4056

<211> 2434

<212> PRT

<213> Homo sapiens

<400> 4056

Met	Glu	Pro	Gln	Asp	Ser	Ser	Leu	Glu	Ile	Cys	Val	Glu	Ser	Leu	Ser
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Ser	Leu	Leu	Lys	His	Glu	Asp	His	Gln	Val	Ser	Asp	Gly	Ala	Leu	Arg
			20					25					30		
Cys	Phe	Ala	Ser	Leu	Ala	Asp	Arg	Phe	Thr	Arg	Arg	Gly	Val	Asp	Pro
			35				40						45		
<del>Ala</del>	<del>Pro</del>	<del>Leu</del>	<del>Ala</del>	<del>Lys</del>	<del>His</del>	<del>Gly</del>	<del>Leu</del>	<del>Thr</del>	<del>Glu</del>	<del>Glu</del>	<del>Leu</del>	<del>Leu</del>	<del>Ser</del>	<del>Arg</del>	<del>Met</del>
			50				55						60		
Ala	Ala	Ala	Gly	Gly	Thr	Val	Ser	Gly	Pro	Ser	Ser	Ala	Cys	Lys	Pro
					70				75					80	
Gly	Arg	Ser	Thr	Thr	Gly	Ala	Pro	Ser	Thr	Thr	Ala	Asp	Ser	Lys	Leu
				85					90					95	
Ser	Asn	Gln	Val	Ser	Thr	Ile	Val	Ser	Leu	Leu	Ser	Thr	Leu	Cys	Arg
			100					105						110	
Gly	Ser	Pro	Val	Val	Thr	His	Asp	Leu	Leu	Arg	Ser	Glu	Leu	Pro	Asp
			115				120					125			
Ser	Ile	Glu	Ser	Ala	Leu	Gln	Gly	Asp	Glu	Arg	Cys	Val	Leu	Asp	Thr
			130			135					140				
Met	Arg	Leu	Val	Asp	Leu	Leu	Val	Leu	Leu	Phe	Glu	Gly	Arg	Lys	
				150				155						160	
Ala	Leu	Pro	Lys	Ser	Ser	Ala	Gly	Ser	Thr	Gly	Arg	Ile	Pro	Gly	Leu
				165				170						175	
Arg	Arg	Leu	Asp	Ser	Ser	Gly	Glu	Arg	Ser	His	Arg	Gln	Leu	Ile	Asp
			180				185						190		
Cys	Ile	Arg	Ser	Lys	Asp	Thr	Asp	Ala	Leu	Ile	Asp	Ala	Ile	Asp	Thr
			195				200					205			
Gly	Ala	Phe	Glu	Val	Asn	Phe	Met	Asp	Asp	Val	Gly	Gln	Thr	Leu	Leu
			210			215					220				
Asn	Trp	Ala	Ser	Ala	Phe	Gly	Thr	Gln	Glu	Met	Val	Glu	Phe	Leu	Cys
			225			230				235				240	
Glu	Arg	Gly	Ala	Asp	Val	Asn	Arg	Gly	Gln	Arg	Ser	Ser	Ser	Leu	His
				245					250					255	
Tyr	Ala	Ala	Cys	Phe	Gly	Arg	Pro	Gln	Val	Ala	Lys	Thr	Leu	Leu	Arg
			260					265					270		
His	Gly	Ala	Asn	Pro	Asp	Leu	Arg	Asp	Glu	Asp	Gly	Lys	Thr	Pro	Leu
			275				280					285			
Asp	Lys	Ala	Arg	Glu	Arg	Gly	His	Ser	Glu	Val	Val	Ala	Ile	Leu	Gln
			290			295					300				
Ser	Pro	Gly	Asp	Trp	Met	Cys	Pro	Val	Asn	Lys	Gly	Asp	Asp	Lys	Lys

305		310		315		320
Lys Lys Asp Thr Asn Lys Asp Glu Glu Glu Cys Asn Glu Pro Lys Gly						
	325			330		335
Asp Pro Glu Met Ala Pro Ile Tyr Leu Lys Arg Leu Leu Pro Val Phe						
	340			345		350
Ala Gln Thr Phe Gln Gln Thr Met Leu Pro Ser Ile Arg Lys Ala Ser						
	355			360		365
Leu Ala Leu Ile Arg Lys Met Ile His Phe Cys Ser Glu Ala Leu Leu						
	370			375		380
Lys Glu Val Cys Asp Ser Asp Val Gly His Asn Leu Pro Thr Ile Leu						
385		390		395		400
Val Glu Ile Thr Ala Thr Val Leu Asp Gln Glu Asp Asp Asp Asp Gly						
	405			410		415
His Leu Leu Ala Leu Gln Ile Ile Arg Asp Leu Val Asp Lys Gly Gly						
	420			425		430
Asp Ile Phe Leu Asp Gln Leu Ala Arg Leu Gly Val Ile Ser Lys Val						
	435			440		445
Ser Thr Leu Ala Gly Pro Ser Ser Asp Asp Glu Asn Glu Glu Glu Ser						
	450			455		460
Lys Pro Glu Lys Glu Asp Glu Pro Gln Glu Asp Ala Lys Glu Leu Gln						
465		470		475		480
Gln Gly Lys Pro Tyr His Trp Arg Asp Trp Ser Ile Ile Arg Gly Arg						
	485			490		495
Asp Cys Leu Tyr Ile Trp Ser Asp Ala Ala Ala Leu Glu Leu Ser Asn						
	500			505		510
Gly Ser Asn Gly Trp Phe Arg Phe Ile Leu Asp Gly Lys Leu Ala Thr						
	515			520		525
Met Tyr Ser Ser Gly Ser Pro Glu Gly Gly Ser Asp Ser Ser Glu Ser						
	530			535		540
Arg Ser Glu Phe Leu Glu Lys Leu Gln Arg Ala Arg Gly Gln Val Lys						
545		550		555		560
Pro Ser Thr Ser Ser Gln Pro Ile Leu Ser Ala Pro Gly Pro Thr Lys						
	565			570		575
Leu Thr Val Gly Asn Trp Ser Leu Thr Cys Leu Lys Glu Gly Glu Ile						
	580			585		590
Ala Ile His Asn Ser Asp Gly Gln Gln Ala Thr Ile Leu Lys Glu Asp						
	595			600		605
Leu Pro Gly Phe Val Phe Glu Ser Asn Arg Gly Thr Lys His Ser Phe						
	610			615		620
Thr Ala Glu Thr Ser Leu Gly Ser Glu Phe Val Thr Gly Trp Thr Gly						
625		630		635		640
Lys Arg Gly Arg Lys Leu Lys Ser Lys Leu Glu Lys Thr Lys Xaa Lys						
	645			650		655
Val Arg Thr Met Ala Arg Asp Leu Tyr Asp Asp His Phe Lys Ala Val						
	660			665		670
Glu Ser Met Pro Arg Gly Val Val Val Thr Leu Arg Asn Ile Ala Thr						
	675			680		685
Gln Leu Glu Ser Ser Trp Glu Leu His Thr Asn Arg Gln Cys Ile Glu						
	690			695		700
Ser Glu Asn Thr Trp Arg Asp Leu Met Lys Thr Ala Leu Glu Asn Leu						
705		710		715		720
Ile Val Leu Leu Lys Asp Glu Asn Thr Ile Ser Pro Tyr Glu Met Cys						
	725			730		735
Ser Ser Gly Leu Val Gln Ala Leu Leu Thr Val Leu Asn Asn Ser Met						

740										745										750													
Asp	Leu	Asp	Met	Lys	Gln	Asp	Cys	Ser	Gln	Leu	Val	Glu	Arg	Ile	Asn																		
		755					760						765																				
Val	Phe	Lys	Thr	Ala	Phe	Ser	Glu	Asn	Glu	Asp	Asp	Glu	Ser	Arg	Pro																		
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Ala	Val	Ala	Leu	Ile	Arg	Lys	Leu	Ile	Ala	Val	Leu	Glu	Ser	Ile	Glu																		
785					790				795					800																			
Arg	Leu	Pro	Leu	His	Leu	Tyr	Asp	Thr	Pro	Gly	Ser	Thr	Tyr	Asn	Leu																		
			805						810					815																			
Gln	Ile	Leu	Thr	Arg	Arg	Leu	Arg	Phe	Arg	Leu	Glu	Arg	Ala	Pro	Gly																		
			820				825						830																				
Glu	Thr	Ala	Leu	Ile	Asp	Arg	Thr	Gly	Arg	Met	Leu	Lys	Met	Glu	Pro																		
	835					840				845																							
Leu	Ala	Thr	Val	Glu	Ser	Leu	Glu	Gln	Tyr	Leu	Leu	Lys	Met	Val	Ala																		
850					855				860																								
Lys	Gln	Trp	Tyr	Asp	Phe	Asp	Arg	Ser	Ser	Phe	Val	Phe	Val	Arg	Lys																		
865				870					875					880																			
Leu	Arg	Glu	Gly	Gln	Asn	Phe	Ile	Phe	Arg	His	Gln	His	Asp	Phe	Asp																		
			885				890						895																				
Glu	Asn	Gly	Ile	Ile	Tyr	Trp	Ile	Gly	Thr	Asn	Ala	Lys	Thr	Ala	Tyr																		
	900						905						910																				
<del>Glu</del>	<del>Trp</del>	<del>Val</del>	<del>Asn</del>	<del>Pro</del>	<del>Ala</del>	<del>Ala</del>	<del>Tyr</del>	<del>Gly</del>	<del>Leu</del>	<del>Val</del>	<del>Val</del>	<del>Val</del>	<del>Thr</del>	<del>Ser</del>	<del>Ser</del>																		
	915					920						925																					
Glu	Gly	Arg	Asn	Leu	Pro	Tyr	Gly	Arg	Leu	Glu	Asp	Ile	Leu	Ser	Arg																		
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Asp	Asn	Ser	Ala	Leu	Asn	Cys	His	Ser	Asn	Asp	Asp	Lys	Asn	Ala	Trp																		
945				950					955					960																			
Phe	Ala	Ile	Asp	Leu	Gly	Leu	Trp	Val	Ile	Pro	Ser	Ala	Tyr	Thr	Leu																		
			965						970				975																				
Arg	His	Ala	Arg	Gly	Tyr	Gly	Arg	Ser	Ala	Leu	Arg	Asn	Trp	Val	Phe																		
	980						985					990																					
Gln	Val	Ser	Lys	Asp	Gly	Gln	Asn	Trp	Thr	Ser	Leu	Tyr	Thr	His	Val																		
	995					1000					1005																						
Asp	Asp	Cys	Ser	Leu	Asn	Glu	Pro	Gly	Ser	Thr	Ala	Thr	Trp	Pro	Leu																		
	1010				1015				1020																								
Asp	Pro	Pro	Lys	Asp	Glu	Lys	Gln	Gly	Trp	Arg	His	Val	Arg	Ile	Lys																		
1025				1030					1035					1040																			
Gln	Met	Gly	Lys	Asn	Ala	Ser	Gly	Gln	Thr	His	Tyr	Leu	Ser	Leu	Ser																		
			1045						1050				1055																				
Gly	Phe	Glu	Leu	Tyr	Gly	Thr	Val	Asn	Gly	Val	Cys	Glu	Asp	Gln	Leu																		
	1060					1065						1070																					
Gly	Lys	Ala	Ala	Lys	Glu	Ala	Glu	Ala	Asn	Leu	Arg	Arg	Gln	Arg	Arg																		
	1075					1080					1085																						
Leu	Val	Arg	Ser	Gln	Val	Leu	Lys	Tyr	Met	Val	Pro	Gly	Ala	Arg	Val																		
	1090					1095					1100																						
Ile	Arg	Gly	Leu	Asp	Trp	Lys	Trp	Arg	Asp	Gln	Asp	Gly	Ser	Pro	Gln																		
1105				1110					1115					1120																			
Gly	Glu	Gly	Thr	Val	Thr	Gly	Glu	Leu	His	Asn	Gly	Trp	Ile	Asp	Val																		
			1125						1130				1135																				
Thr	Trp	Asp	Ala	Gly	Gly	Ser	Asn	Ser	Tyr	Arg	Met	Gly	Ala	Glu	Gly																		
	1140						1145					1150																					
Lys	Phe	Asp	Leu	Lys	Leu	Ala	Pro	Gly	Tyr	Asp	Pro	Asp	Thr	Val	Ala																		
	1155					1160					1165																						
Ser	Pro	Lys	Pro	Val	Ser	Ser	Thr	Val	Ser	Gly	Thr	Thr	Gln	Ser	Trp																		

1170	1175	1180
Ser Ser Leu Val Lys Asn Asn Cys Pro Asp Lys Thr Ser Ala Ala Ala		
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Gly Ser Ser Ser Arg Lys Gly Ser Ser Ser Ser Val Cys Ser Val Ala		1200
1205	1210	1215
Ser Ser Ser Asp Ile Ser Leu Gly Ser Thr Lys Thr Glu Arg Arg Ser		
1220	1225	1230
Glu Ile Val Met Glu His Ser Ile Val Ser Gly Ala Asp Val His Glu		
1235	1240	1245
Pro Ile Val Val Leu Ser Ser Ala Glu Asn Val Pro Gln Thr Glu Val		
1250	1255	1260
Gly Ser Ser Ser Ser Ala Ser Thr Ser Thr Leu Thr Ala Glu Thr Gly		
1265	1270	1275
Ser Glu Asn Ala Glu Arg Lys Leu Gly Pro Asp Ser Ser Val Arg Thr		1280
1285	1290	1295
Pro Gly Glu Ser Ser Ala Ile Ser Met Gly Ile Val Ser Val Ser Ser		
1300	1305	1310
Pro Asp Val Ser Ser Val Ser Glu Leu Thr Asn Lys Glu Ala Ala Ser		
1315	1320	1325
Gln Arg Pro Leu Ser Ser Ser Ala Ser Asn Arg Leu Ser Val Ser Ser		
1330	1335	1340
<del>Leu Leu Ala Ala Gly Ala Pro Met Ser Ser Ser Ala Ser Val Pro Asn</del>		
1345	1350	1355
Leu Ser Ser Arg Glu Thr Ser Ser Leu Glu Ser Phe Val Arg Arg Val		1360
1365	1370	1375
Ala Asn Ile Ala Arg Thr Asn Ala Thr Asn Asn Met Asn Leu Ser Arg		
1380	1385	1390
Ser Ser Ser Asp Asn Asn Thr Asn Thr Leu Gly Arg Asn Val Met Ser		
1395	1400	1405
Thr Ala Thr Ser Pro Leu Met Gly Ala Gln Ser Phe Pro Asn Leu Thr		
1410	1415	1420
Thr Pro Gly Thr Thr Ser Thr Val Thr Met Ser Thr Ser Ser Val Thr		
1425	1430	1435
Ser Ser Ser Asn Val Ala Thr Ala Thr Thr Val Leu Ser Val Gly Gln		1440
1445	1450	1455
Ser Leu Ser Asn Thr Leu Thr Thr Ser Leu Thr Ser Thr Ser Ser Glu		
1460	1465	1470
Ser Asp Thr Gly Gln Glu Ala Glu Tyr Ser Leu Tyr Asp Phe Leu Asp		
1475	1480	1485
Ser Cys Arg Ala Ser Thr Leu Leu Ala Glu Leu Asp Asp Asp Glu Asp		
1490	1495	1500
Leu Pro Glu Pro Asp Glu Glu Asp Asp Glu Asn Glu Asp Asp Asn Gln		
1505	1510	1515
Glu Asp Gln Glu Tyr Glu Glu Val Met Ile Leu Arg Arg Pro Ser Leu		
1525	1530	1535
Gln Arg Arg Ala Gly Ser Arg Ser Asp Val Thr His His Ala Val Thr		
1540	1545	1550
Ser Gln Leu Pro Gln Val Pro Ala Gly Ala Gly Ser Arg Pro Ile Gly		
1555	1560	1565
Glu Gln Glu Glu Glu Tyr Glu Thr Lys Gly Gly Arg Arg Arg Thr		
1570	1575	1580
Trp Asp Asp Asp Tyr Val Leu Lys Arg Gln Phe Ser Ala Leu Val Pro		
1585	1590	1595
Ala Phe Asp Pro Arg Pro Gly Arg Thr Asn Val Gln Gln Thr Thr Asp		1600

1605	1610	1615
Leu Glu Ile Pro Pro Gly Thr Pro His Ser Glu Leu Leu Glu Glu		
1620	1625	1630
Val Glu Cys Thr Pro Ser Pro Arg Leu Ala Leu Thr Leu Lys Val Thr		
1635	1640	1645
Gly Leu Gly Thr Thr Arg Glu Val Glu Leu Pro Leu Thr Asn Phe Arg		
1650	1655	1660
Ser Thr Ile Phe Tyr Tyr Val Gln Lys Leu Leu Gln Leu Ser Cys Asn		
1665	1670	1675
Gly Asn Val Lys Ser Asp Lys Leu Arg Arg Ile Trp Glu Pro Thr Tyr		
1685	1690	1695
Thr Ile Met Tyr Arg Glu Met Lys Asp Ser Asp Lys Glu Lys Glu Asn		
1700	1705	1710
Gly Lys Met Gly Cys Trp Ser Ile Glu His Val Glu Gln Tyr Leu Gly		
1715	1720	1725
Thr Asp Glu Leu Pro Lys Asn Asp Leu Ile Thr Tyr Leu Gln Lys Asn		
1730	1735	1740
Ala Asp Ala Ala Phe Leu Arg His Trp Lys Leu Thr Gly Thr Asn Lys		
1745	1750	1755
Ser Ile Arg Lys Asn Arg Asn Cys Ser Gln Leu Ile Ala Ala Tyr Lys		
1765	1770	1775
Asp-Phe-Cys-Glu-His-Gly-Thr-Lys-Ser-Gly-Leu-Asn-Gln-Gly-Ala-Ile		
1780	1785	1790
Ser Thr Leu Gln Ser Ser Asp Ile Leu Asn Leu Thr Lys Glu Gln Pro		
1795	1800	1805
Gln Ala Lys Ala Gly Asn Gly Gln Asn Ser Cys Gly Val Glu Asp Val		
1810	1815	1820
Leu Gln Leu Leu Arg Ile Leu Tyr Ile Val Ala Ser Asp Pro Tyr Ser		
1825	1830	1835
Arg Ile Ser Gln Glu Asp Gly Asp Glu Gln Pro Gln Phe Thr Phe Pro		
1845	1850	1855
Pro Asp Glu Phe Thr Ser Lys Lys Ile Thr Thr Lys Ile Leu Gln Gln		
1860	1865	1870
Ile Glu Glu Pro Leu Ala Leu Ala Ser Gly Ala Leu Pro Asp Trp Cys		
1875	1880	1885
Glu Gln Leu Thr Ser Lys Cys Pro Phe Leu Ile Pro Phe Glu Thr Arg		
1890	1895	1900
Gln Leu Tyr Phe Thr Cys Thr Ser Phe Gly Ala Ser Arg Ala Ile Val		
1905	1910	1915
Trp Leu Gln Asn Arg Arg Glu Ala Thr Val Glu Arg Thr Arg Thr Thr		
1925	1930	1935
Ser Ser Val Arg Arg Asp Asp Pro Gly Glu Phe Arg Val Gly Arg Leu		
1940	1945	1950
Lys His Glu Arg Val Lys Val Pro Arg Gly Glu Ser Leu Met Glu Trp		
1955	1960	1965
Ala Glu Asn Val Met Gln Ile His Ala Asp Arg Lys Ser Val Leu Glu		
1970	1975	1980
Val Glu Phe Leu Gly Glu Glu Gly Thr Gly Leu Gly Pro Thr Leu Glu		
1985	1990	1995
Phe Tyr Ala Leu Val Ala Ala Glu Phe Gln Arg Thr Asp Leu Gly Ala		
2005	2010	2015
Trp Leu Cys Asp Asp Asn Phe Pro Asp Asp Glu Ser Arg His Val Asp		
2020	2025	2030
Leu Gly Gly Gly Leu Lys Pro Pro Gly Tyr Tyr Val Gln Arg Ser Cys		

2035	2040	2045
Gly Leu Phe Thr Ala Pro Phe Pro Gln Asp Ser Asp Glu Leu Glu Arg		
2050	2055	2060
Ile Thr Lys Leu Phe His Phe Leu Gly Ile Phe Leu Ala Lys Cys Ile		
2065	2070	2075
Gln Asp Asn Arg Leu Val Asp Leu Pro Ile Ser Lys Pro Phe Phe Lys		2080
2085	2090	2095
Leu Met Cys Met Gly Asp Ile Lys Ser Asn Met Ser Lys Leu Ile Tyr		
2100	2105	2110
Glu Ser Arg Gly Asp Arg Asp Leu His Cys Thr Glu Ser Gln Ser Glu		
2115	2120	2125
Ala Ser Thr Glu Glu Gly His Asp Ser Leu Ser Val Gly Ser Phe Glu		
2130	2135	2140
Glu Asp Ser Lys Ser Glu Phe Ile Leu Asp Pro Pro Lys Pro Lys Pro		
2145	2150	2155
Pro Ala Trp Leu Asn Gly Ile Leu Thr Trp Glu Asp Phe Glu Leu Val		2160
2165	2170	2175
Asn Pro His Arg Ala Arg Phe Leu Lys Glu Ile Lys Asp Leu Ala Ile		
2180	2185	2190
Lys Arg Arg Gln Ile Leu Ser Asn Lys Gly Leu Ser Glu Asp Glu Lys		
2195	2200	2205
Asn Thr Lys Leu Gln Glu Leu Val Leu Lys Asn Pro Ser Gly Ser Gly		
2210	2215	2220
Pro Pro Leu Ser Ile Glu Asp Leu Gly Leu Asn Phe Gln Phe Cys Pro		
2225	2230	2235
Ser Ser Arg Ile Tyr Gly Phe Thr Ala Val Asp Leu Lys Pro Ser Gly		
2245	2250	2255
Glu Asp Glu Met Ile Thr Met Asp Asn Ala Glu Glu Tyr Val Asp Leu		
2260	2265	2270
Met Phe Asp Phe Cys Met His Thr Gly Ile Gln Lys Gln Met Glu Ala		
2275	2280	2285
Phe Arg Asp Gly Phe Asn Lys Val Phe Pro Met Glu Lys Leu Ser Ser		
2290	2295	2300
Phe Ser His Glu Glu Val Gln Met Ile Leu Cys Gly Asn Gln Ser Pro		
2305	2310	2315
Ser Trp Ala Ala Glu Asp Ile Ile Asn Tyr Thr Glu Pro Lys Leu Gly		
2325	2330	2335
Tyr Thr Arg Asp Ser Pro Gly Phe Leu Arg Phe Val Arg Val Leu Cys		
2340	2345	2350
Gly Met Ser Ser Asp Glu Arg Lys Ala Phe Leu Gln Phe Thr Thr Gly		
2355	2360	2365
Cys Ser Thr Leu Pro Pro Gly Gly Leu Ala Asn Leu His Pro Arg Leu		
2370	2375	2380
Thr Val Val Arg Lys Val Asp Ala Thr Asp Ala Ser Tyr Pro Ser Val		
2385	2390	2395
Asn Thr Cys Val His Tyr Leu Lys Leu Pro Glu Tyr Ser Ser Glu Glu		
2405	2410	2415
Ile Met Arg Glu Arg Leu Leu Ala Ala Thr Met Glu Lys Gly Phe His		
2420	2425	2430
Leu Asn		

&lt;210&gt; 4057

&lt;211&gt; 533

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4057

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533

&lt;210&gt; 4058

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4058

Ala	Arg	Leu	His	Leu	Leu	Asp	Gln	Val	Phe	Phe	Gln	Glu	Leu	Leu	Lys
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Thr	Ala	Arg	Ser	Ser	Lys	Ala	Phe	Pro	Glu	Asp	Val	Val	Arg	Val	Ile
			20					25					30		
Phe	Ser	Asn	Ile	Ser	Ser	Ile	Tyr	Gln	Phe	His	Ser	Gln	Phe	Phe	Leu
		35				40						45			
Pro	Glu	Leu	Gln	Arg	Arg	Leu	Asp	Asp	Trp	Thr	Ala	Asn	Pro	Arg	Ile
	50					55					60				
Gly	Asp	Val	Ile	Gln	Lys	Leu	Ala	Pro	Phe	Leu	Lys	Met	Tyr	Ser	Glu
65				70					75					80	
Tyr	Val	Lys	Asn	Phe	Glu	Arg	Ala	Ala	Glu	Leu	Leu	Ala	Thr	Trp	Thr
			85					90					95		
Asp	Lys	Ser	Pro	Leu	Phe	Gln	Glu	Val	Leu	Thr	Arg	Ile	Gln	Val	Arg
			100					105					110		
Leu	Gly	Glu	Gly	Trp	Ser	Gln	His	Cys	His	Ser	Gln	His	Ala	Val	Ala
	115					120					125				
Gln	Val	Ala	Leu	Ser	Asp	Ser	Gly	His	Leu	Pro	Gly	Ser	Ala	Ala	Ser
	130					135					140				
Ile	Gly	Pro	Cys	Leu	Leu	Val	Arg	Pro	Ser	Gly	Ala	Ala			
145				150						155					

&lt;210&gt; 4059

&lt;211&gt; 3994

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
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Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
      115          120          125
His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
      130          135          140
Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
      145          150          155          160
Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
      165          170          175
Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile
      180          185          190
Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
      195          200          205
Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
      210          215          220
Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Met
      225          230          235          240
Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr
      245          250          255
Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly
      260          265          270
Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro
      275          280          285
Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
      290          295          300
Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
      305          310          315          320
Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu Lys Leu Leu
      325          330          335
Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg
      340          345          350
Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
      355          360          365
Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

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370	375	380
Tyr Gln Arg Val Lys Asp Leu Cys Gln Arg Ala Glu Tyr Gln Thr Ala		
385	390	395
Cys Glu Gln Leu Gly Gln Lys Trp Gln Cys Val Glu Asp Ala Thr Gly		400
	405	410
Lys Leu Lys Leu His Lys Cys Lys Gly Pro Met Arg Leu Gly Gly Ser		415
	420	425
Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr Tyr Gly Gln Gly Ser Glu		430
	435	440
Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser Leu Ala Gly Arg		445
	450	455
Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg		460
465	470	475
Asn Arg Ser Ile Arg Ser Val Ala Ile Glu Val Asp Gly Arg Val Tyr		480
	485	490
His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr Lys Arg		495
	500	505
His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp		510
	515	520
Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa		525
530	535	540
<del>Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln</del>		
545	550	555
Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys		560
	565	570
Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys Asn		575
	580	585
Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu Cys		590
	595	600
Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu Lys		605
	610	615
His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu Lys		620
625	630	635
Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg		640
	645	650
Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly		655
	660	665
Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe		670
	675	680
Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr		685
	690	695
Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys		700
705	710	715
Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro		720
	725	730
Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn		735
	740	745
Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys		750
	755	760
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly		765
	770	775
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu		780
785	790	795
Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu Trp Glu Gly Trp		800

805                      810                      815

Glu Gly

<210> 4065  
 <211> 696  
 <212> DNA  
 <213> Homo sapiens

<400> 4065  
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 60  
 agaaagtctg tgattgctgt gagcttcata gcagcgttcc ttttctgct ggttgtgcgt  
 120  
 cttgtaaatg aagtgaattt cccattgcta ctaaactgct ttggacaacc tggtaaaaag  
 180  
 tggataccat tctcctacac atacaggcgg ccccttcgaa ctactatgg atacataaat  
 240  
 gtgaagacac aagagccttt gcaactggac tgtgaccttt gtgccatagt gtcaaactca  
 300  
 ggtcagatgg ttggccagaa ggtgggaaat gagatagatc gatcctcctg catttggaga  
 360  
 atgaacaatg cccccaccaa aggttatgaa gaagatgtcg gccgcatgac catgattcga  
 420  
 gttgtgtccc ataccagcgt tctctttttg ctaaaaaacc ctgattatgt tttcaaggaa  
 480  
 gcgaatacta ctatttatgt tatttgggga cctttccgca atatgaggaa agatggcaat  
 540  
 ggcacgtnt acaacatgtt gaaaaagaca gttggtatct atccgaatgc ccaaataac  
 600  
 gtgaccacag agaagcgcag gagttactgt gatggagttt taagaaggaa anctgggaag  
 660  
 gacagtacag agtgaccatg cagtgttgat tgatca  
 696

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<210> 4066  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 4066  
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 1                      5                      10                      15  
 Ala Ala Phe Leu Phe Leu Leu Val Val Arg Leu Val Asn Glu Val Asn  
 20                      25                      30  
 Phe Pro Leu Leu Leu Asn Cys Phe Gly Gln Pro Gly Thr Lys Trp Ile  
 35                      40                      45  
 Pro Phe Ser Tyr Thr Tyr Arg Arg Pro Leu Arg Thr His Tyr Gly Tyr  
 50                      55                      60  
 Ile Asn Val Lys Thr Gln Glu Pro Leu Gln Leu Asp Cys Asp Leu Cys  
 65                      70                      75                      80  
 Ala Ile Val Ser Asn Ser Gly Gln Met Val Gly Gln Lys Val Gly Asn  
 85                      90                      95  
 Glu Ile Asp Arg Ser Ser Cys Ile Trp Arg Met Asn Asn Ala Pro Thr

[illegible]

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<210> 4067
<211> 1800
<212> DNA
<213> Homo sapiens
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2400> 4067					
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60					
actccttcta	cagctaattg	gaatgacagc	aagaaattta	aacgagatag	acctccctgt
120					
tcgccttccc	gtgttctcca	tcttcgaaaa	attccatgtg	atgtcaccga	agcagagatc
180					
atatcattag	gtctaccatt	tggcaaagta	actaatcttt	tgatgttgaa	aggaaaaagc
240					
caggctttct	tagaaatggc	ttctgaggaa	gctgccgtta	ctatggtgaa	ttattacact
300					
cctattactc	ctcaccttcg	aagccagcct	gtttatatte	agtattccaa	tcacagagaa
360					
cttaagactg	acaatctacc	taatcaagct	cgagcccaag	ctgcactgca	ggetgtcagt
420					
gccgtccaat	caggaagcct	ggccctttct	ggaggtcctt	ccaatgaagg	cacagtccta
480					
cctgggcaga	gccctgtgct	tcgaataatt	attgaaaacc	tcttttacc	tgttaccctg
540					
gaagttcttc	atcagatatt	ttctaaattt	ggcacagtct	tgaagattat	cacctttaca
600					
aagaataatc	agtttcaagc	cttgcttcag	tatgctgacc	cagtaaatgc	acattatgcc
660					
aaaatggctc	tggatggcca	gaatatctat	aatgcattgt	gcactctgcg	cattgacttc
720					
tccaagctca	ccagccttaa	tgtgaaatat	aataatgaca	aaagcagaga	cttcactcgc
780					
ttagaccttc	ctactggtga	tggccagcca	tcccttgaa	cccctatggc	tgctgctttt
840					
ggtgcaccgg	gtataatttc	ttcaccatat	gcaggggctg	ctggatttgc	cccagccatt
900					
ggatttcctc	aagctacagg	tctatcagtt	ccagctgttc	ctggagctct	tggtcctctc
960					

acaatcacct cttctgctgt cactggaagg atggccattc ctggggctag tggatatacca  
 1020  
 ggaaattctg ttctactcgt cacaaatctc aatcctgac ttatcacacc acatgggctt  
 1080  
 tttatcctat ttggagtcta tgggtgatgta catcgagtga agattatgtt taataagaaa  
 1140  
 gaaaatgcct tggttcagat ggcggatgca aatcaagctc agctagcaat gaaccatcta  
 1200  
 agtggtcaga gactttatgg gaaagtgcct cgtgctacac tgtccaaaca tcaagcagta  
 1260  
 cagcttcctc gagagggaca agaagaccaa ggtctgacta aggatttcag caatagtcct  
 1320  
 ttgcatcgt ttaaaaagcc gggtctctaaa aacttcagaa atatctttcc accatcagcc  
 1380  
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 1440  
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 1500  
 ctcatccaat tgggatctgt ggaagaagca attcaggccc tcattgagct tcataacat  
 1560  
 gaccttggag aaaatcacca cctcagagtt tccttctcaa aatctacaat ctgacttttc  
 1620  
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 1680  
 agcagctcaa gaccaatttt gcctctttca caaaaataac tctttctgag tttgatattc  
 1740  
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 1800

<210> 4068  
 <211> 521  
 <212> PRT  
 <213> Homo sapiens

<400> 4068  
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 Phe Lys Arg Asp Arg Pro Pro Cys Ser Pro Ser Arg Val Leu His Leu  
 20 25 30  
 Arg Lys Ile Pro Cys Asp Val Thr Glu Ala Glu Ile Ile Ser Leu Gly  
 35 40 45  
 Leu Pro Phe Gly Lys Val Thr Asn Leu Leu Met Leu Lys Gly Lys Ser  
 50 55 60  
 Gln Ala Phe Leu Glu Met Ala Ser Glu Glu Ala Ala Val Thr Met Val  
 65 70 75 80  
 Asn Tyr Tyr Thr Pro Ile Thr Pro His Leu Arg Ser Gln Pro Val Tyr  
 85 90 95  
 Ile Gln Tyr Ser Asn His Arg Glu Leu Lys Thr Asp Asn Leu Pro Asn  
 100 105 110  
 Gln Ala Arg Ala Gln Ala Ala Leu Gln Ala Val Ser Ala Val Gln Ser  
 115 120 125  
 Gly Ser Leu Ala Leu Ser Gly Gly Pro Ser Asn Glu Gly Thr Val Leu  
 130 135 140  
 Pro Gly Gln Ser Pro Val Leu Arg Ile Ile Ile Glu Asn Leu Phe Tyr

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145          150          155          160
Pro Val Thr Leu Glu Val Leu His Gln Ile Phe Ser Lys Phe Gly Thr
          165          170          175
Val Leu Lys Ile Ile Thr Phe Thr Lys Asn Asn Gln Phe Gln Ala Leu
          180          185          190
Leu Gln Tyr Ala Asp Pro Val Asn Ala His Tyr Ala Lys Met Ala Leu
          195          200          205
Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
          210          215          220
Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
225          230          235          240
Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
          245          250          255
Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
          260          265          270
Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
          275          280          285
Ala Thr Gly Leu Ser Val Pro Ala Val Pro Gly Ala Leu Gly Pro Leu
          290          295          300
Thr Ile Thr Ser Ser Ala Val Thr Gly Arg Met Ala Ile Pro Gly Ala
305          310          315          320
Ser Gly Ile Pro Gly Asn Ser Val Leu Leu Val Thr Asn Leu Asn Pro
          325          330          335
Asp Leu Ile Thr Pro His Gly Leu Phe Ile Leu Phe Gly Val Tyr Gly
          340          345          350
Asp Val His Arg Val Lys Ile Met Phe Asn Lys Lys Glu Asn Ala Leu
          355          360          365
Val Gln Met Ala Asp Ala Asn Gln Ala Gln Leu Ala Met Asn His Leu
          370          375          380
Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys
385          390          395          400
His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu
          405          410          415
Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
          420          425          430
Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
          435          440          445
Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
          450          455          460
Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
465          470          475          480
Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
          485          490          495
Ala Leu Ile Glu Leu His Asn His Asp Leu Gly Glu Asn His His Leu
          500          505          510
Arg Val Ser Phe Ser Lys Ser Thr Ile
          515          520

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&lt;210&gt; 4069

&lt;211&gt; 714

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4069

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 60  
 gaatggctga agatgtcata ccctgccaaag gtaaccctgc tggggtcagt tatcttcaca  
 120  
 ttccagcaca cccagcatct ggcaatatca aagcataatc ttatgttcct ttataccatc  
 180  
 tttattgtgg ccacaaagat aaccatgatg actacacaga cttctactat gacatttgct  
 240  
 ccttttgagg atacattgag ttggatgcta tttggctggc agcagccgtt ttcacatgt  
 300  
 gagaagaaaa gtgaagcaaa gtcaccttcc aatggcggtg ggtcattggc ctcaaagccg  
 360  
 gtagatgttg cctcagataa tgttaaaaag aaacatacta agaagaatga ataaatttac  
 420  
 gtgatgagct ctacaaggcc aaaaattttt tttcttatct acctgttata ttgtgcta  
 480  
 ttttctatgt atgtgatgtg aaatgaagac tatatatatg gaatggaggt gacagaaaga  
 540  
 aagaaattct ttgtttgagg gagacttccc ctttctggat tgtatttgta gagtgttacg  
 600  
 agtgtatcat gtgattatgc tttaccggta taagagattc tgttgtgatt atttgaatag  
 660  
 ttttatatta ataaaagaag acaaaatttt ttaaattgta aaaaagcag atct  
 714

<210> 4070  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 4070  
 Met Ser Tyr Pro Ala Lys Val Thr Leu Leu Gly Ser Val Ile Phe Thr  
 1 5 10 15  
 Phe Gln His Thr Gln His Leu Ala Ile Ser Lys His Asn Leu Met Phe  
 20 25 30  
 Leu Tyr Thr Ile Phe Ile Val Ala Thr Lys Ile Thr Met Met Thr Thr  
 35 40 45  
 Gln Thr Ser Thr Met Thr Phe Ala Pro Phe Glu Asp Thr Leu Ser Trp  
 50 55 60  
 Met Leu Phe Gly Trp Gln Gln Pro Phe Ser Ser Cys Glu Lys Lys Ser  
 65 70 75 80  
 Glu Ala Lys Ser Pro Ser Asn Gly Val Gly Ser Leu Ala Ser Lys Pro  
 85 90 95  
 Val Asp Val Ala Ser Asp Asn Val Lys Lys Lys His Thr Lys Lys Asn  
 100 105 110  
 Glu

<210> 4071  
 <211> 601  
 <212> DNA  
 <213> Homo sapiens

<400> 4071

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 cagacttgca gcggacttgc tcagtgtgca cgcgcagcag cacctcagca tcttcaaacc  
 120  
 catccacgat tgectgtagt tctgcaggc actgcccctc cagctggaga cgtgcatcac  
 180  
 ccacacacca ggccaggctg aggtggaaag aaggatcctg gtagaaagtg gtgaggttga  
 240  
 attcctccat gactctgtcc acctctgaaa ccagggtccag gaactgggca tgcctgaag  
 300  
 tgacctcaag cccaataaag gtcttggttt tctcttgatt ggtgtaaatac tttacctggt  
 360  
 tggcagtaaa gaagaatctg tggaaggagg tcatacgggc tttcagagcc tgcacgaagg  
 420  
 ggaggatcca gtggtggcgc agaaccacac tctgggacag gctgaggtgg aacaccttca  
 480  
 tccttaccag ccgggggacg agtgcgacc ttccccacg agcgaggcaa ctgggccacc  
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 cacgtctatg taccatatga agccaaggag gagttcctgg atctgcttga tgtgttgctg  
 600  
 c  
 601

<210> 4072  
 <211> 175  
 <212> PRT  
 <213> Homo sapiens

<400> 4072  
 Met Val His Arg Arg Gly Trp Pro Ser Cys Leu Ala Arg Gly Gly Arg  
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 Cys Ala Leu Val Pro Arg Leu Val Arg Met Lys Val Phe His Leu Ser  
 20 25 30  
 Leu Ser Gln Ser Val Val Leu Arg His His Trp Ile Leu Pro Phe Val  
 35 40 45  
 Gln Ala Leu Lys Ala Arg Met Thr Ser Phe His Arg Phe Phe Phe Thr  
 50 55 60  
 Ala Asn Gln Val Lys Ile Tyr Thr Asn Gln Glu Lys Thr Arg Thr Phe  
 65 70 75 80  
 Ile Gly Leu Glu Val Thr Ser Gly His Ala Gln Phe Leu Asp Leu Val  
 85 90 95  
 Ser Glu Val Asp Arg Val Met Glu Glu Phe Asn Leu Thr Thr Phe Tyr  
 100 105 110  
 Gln Asp Pro Ser Phe His Leu Ser Leu Ala Trp Cys Val Gly Asp Ala  
 115 120 125  
 Arg Leu Gln Leu Glu Gly Gln Cys Leu Gln Glu Leu Gln Ala Ile Val  
 130 135 140  
 Asp Gly Phe Glu Asp Ala Glu Val Leu Leu Arg Val His Thr Glu Gln  
 145 150 155 160  
 Val Arg Cys Lys Ser Gly Asn Lys Phe Phe Ser Met Pro Leu Lys  
 165 170 175

<210> 4073  
 <211> 1864

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4073

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gcctgcaccg cagtcgccggg atcgggtcga ggggagaaga aaaaggggtg ctccgggagca  
120  
gcccccgggt acctcccctg gaggcacaga gggcgggggc cttggcgaat ggctttcttg  
180  
ctggccactt gcggagttag tagacccega ggggtctggga gagggggcgg ccctacccc  
240  
tgagtccccg ggggtccggc cgccaggccg gagcgcaat gtcgtgetca ccctgcctcc  
300  
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360  
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420  
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480  
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540  
aaagaccaga gtaatgcgga gaagcacgca gatggaatga taagtactat taatcccgta  
600  
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720  
gttggacctg tgttggctac cttgggacat catcagactc ctacaccaaa tagtacaggc  
780  
agtggccatt caccaccgag tagcagtctc acttctccaa gccacgtgaa cttgtctcca  
840  
aatacagtc cagagttctc ttactccagc agtgaagatg aattttatga tgctgatgaa  
900  
ttccatcaaa gtggctcacc cccaaagcgc ttaatagatt cttctggatc tgccctcagtc  
960  
ctgacacaca gcagctcggg aaatagtcta aaacgcccag ataccacaga atcacttaat  
1020  
tcttccttgt ccaatggaac aagtgatgct gacctgtttg attcacatga tgacagagat  
1080  
gatgatgcgg aggcagggtc tgtggaggag cacaagagcg ttatcatgca tctcttgctg  
1140  
caggtagtagc ttggaatgga tcttactaag gtagttcttc caacgtttat tcttgaaaga  
1200  
agatctcttt tagaaatgta tgcagacttt tttgcacatc cggacctgtt tgtgagcatt  
1260  
agtgaccaga aggatcccaa ggatcgaatg gttcagggtg tgaaatggta cctctcagcc  
1320  
tttcatgcgg gaaggaaagg atcagttgcc aaaaagccat acaatcccat tttggcgag  
1380  
atttttcagt gtcattggac attaccaaatt gatactgaag agaacacaga actagtttca  
1440  
gaaggaccag ttccctgggt ttccaaaaac agtgaataat ttgtggctga gcaggtttcc  
1500



catcatccac ccatttcagc cttttatgct gagtggttta acaagaagat acaattcaat  
 1560  
 gctcatatct ggaccaaacc aaaattcctt gggatgtcaa ttgggggtgca caacataggg  
 1620  
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 1680  
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 1740  
 tgttccaaaa caggctatag tgcaaatatc atcttcaca ctaaaccctt ctatgggggc  
 1800  
 aagaagcaca gaattactgc cgagattttt tctccaaatg acaagaagtc tttttgctca  
 1860  
 attg  
 1864

&lt;210&gt; 4074

&lt;211&gt; 456

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4074

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 Asp Gln Ser Asn Ala Glu Lys His Ala Asp Gly Met Ile Ser Thr Ile  
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 Asn Pro Val Asp Ala Ile Tyr Gln Pro Ser Pro Leu Glu Pro Val Ile  
 35 40 45  
 Ser Thr Met Pro Ser Gln Thr Val Leu Pro Pro Glu Pro Val Gln Leu  
 50 55 60  
 Cys Lys Ser Glu Gln Arg Pro Ser Ser Leu Pro Val Gly Pro Val Leu  
 65 70 75 80  
 Ala Thr Leu Gly His His Gln Thr Pro Thr Pro Asn Ser Thr Gly Ser  
 85 90 95  
 Gly His Ser Pro Pro Ser Ser Ser Leu Thr Ser Pro Ser His Val Asn  
 100 105 110  
 Leu Ser Pro Asn Thr Val Pro Glu Phe Ser Tyr Ser Ser Ser Glu Asp  
 115 120 125  
 Glu Phe Tyr Asp Ala Asp Glu Phe His Gln Ser Gly Ser Ser Pro Lys  
 130 135 140  
 Arg Leu Ile Asp Ser Ser Gly Ser Ala Ser Val Leu Thr His Ser Ser  
 145 150 155 160  
 Ser Gly Asn Ser Leu Lys Arg Pro Asp Thr Thr Glu Ser Leu Asn Ser  
 165 170 175  
 Ser Leu Ser Asn Gly Thr Ser Asp Ala Asp Leu Phe Asp Ser His Asp  
 180 185 190  
 Asp Arg Asp Asp Ala Glu Ala Gly Ser Val Glu Glu His Lys Ser  
 195 200 205  
 Val Ile Met His Leu Leu Ser Gln Val Arg Leu Gly Met Asp Leu Thr  
 210 215 220  
 Lys Val Val Leu Pro Thr Phe Ile Leu Glu Arg Arg Ser Leu Leu Glu  
 225 230 235 240  
 Met Tyr Ala Asp Phe Phe Ala His Pro Asp Leu Phe Val Ser Ile Ser  
 245 250 255  
 Asp Gln Lys Asp Pro Lys Asp Arg Met Val Gln Val Val Lys Trp Tyr

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      260      265      270
Leu Ser Ala Phe His Ala Gly Arg Lys Gly Ser Val Ala Lys Lys Pro
      275      280      285
Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
      290      295      300
Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
      305      310      315      320
Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
      325      330      335
His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
      340      345      350
Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
      355      360      365
Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
      370      375      380
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Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
      405      410      415
Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
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Asp Lys Lys Ser Phe Cys Ser Ile
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&lt;210&gt; 4075

&lt;211&gt; 2492

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4075

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 <211> 410  
 <212> PRT  
 <213> Homo sapiens

<400> 4076

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&lt;210&gt; 4077

&lt;211&gt; 684

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4077

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&lt;210&gt; 4078

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4078

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Thr	Leu	Phe	Ala	Lys	His	Ile	Lys	Leu	Asp	Cys	Glu	Arg	Cys	Gln	Ala
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&lt;210&gt; 4079

&lt;211&gt; 783

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4079

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<212> PRT

<213> Homo sapiens

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Arg	Ala	Gln	Pro	Ser	Pro	Glu	Arg	Thr	Leu	His	Ser	Asn	Leu	Pro	Gln
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Ser	Trp	Gly	Lys	His	Glu	Gly	Cys	Pro	Ser	Thr	Glu	Val	Asn	Pro	Gly
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<211> 645

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 4084

&lt;211&gt; 362

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4084

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 Val Tyr Gly Leu Asn Phe Ala Ser Lys Glu Glu Ala Thr Thr Phe Ser  
 35 40 45  
 Asn Ala Met Leu Phe Ala Leu Asn Ile Met Asn Ser Gln Glu Gly Gly  
 50 55 60  
 Pro Ser Ser Gln Arg Gln Val Gln Asn Gly Pro Ser Pro Asp Glu Met  
 65 70 75 80  
 Asp Ile Gln Arg Arg Gln Val Met Glu Gln His Gln Gln Gln Arg Gln  
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<210> 4085
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<212> DNA
<213> Homo sapiens
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420

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 <212> PRT  
 <213> Homo sapiens

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 Gly Thr Lys Asp Pro Ser Arg Asn Arg Tyr Lys Leu Phe Leu Glu Cys  
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 Thr Leu Ile Leu Thr Ser Val Val Pro Pro Glu Leu Pro Ile Glu Leu  
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 Tyr Cys Thr Glu Pro Phe Arg Ile Pro Phe Ala Gly Lys Val Glu Val  
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 Cys Cys Phe Asp Lys Thr Gly Thr Leu Thr Ser Asp Ser Leu Val Val  
 115 120 125  
 Arg Gly Val Ala Gly Leu Arg Asp Gly Lys Glu Val Thr Pro Val Ser  
 130 135 140  
 Ser Ile Pro Val Glu Thr His Arg Ala Leu Ala Ser Cys His Ser Leu  
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 Met Gln Leu Asp Asp Gly Thr Leu Val Gly Asp Pro Leu Glu Lys Ala  
 165 170 175  
 Met Leu Thr Ala Val Asp Trp Thr Leu Thr Lys Asp Glu Lys Val Phe  
 180 185 190  
 Pro Arg Ser Ile Lys Thr Gln Gly Leu Lys Ile His Gln Arg Phe His

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Phe Ala Ser Ala Leu Lys Arg Met Ser Val Leu Ala Ser Tyr Glu Lys		
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Glu Thr Leu His Ser Met Phe Ser Gln Cys Pro Pro Asp Tyr His His		
245	250	255
Ile His Thr Glu Ile Ser Arg Glu Gly Ala Arg Val Leu Ala Leu Gly		
260	265	270
Tyr Lys Glu Leu Gly His Leu Thr His Gln Gln Ala Arg Glu Val Lys		
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Arg Glu Ala Leu Glu Cys Ser Leu Lys Phe Val Gly Phe Ile Val Val		
290	295	300
Ser Cys Pro Leu Lys Ala Asp Ser Lys Ala Val Ile Arg Glu Ile Gln		
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Asn Ala Ser His Arg Val Val Met Ile Thr Gly Asp Asn Pro Leu Thr		
325	330	335
Ala Cys His Val Ala Gln Glu Leu His Phe Ile Glu Lys Ala His Thr		
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Leu Ile Leu Gln Pro Pro Ser Glu Lys Gly Arg Gln Cys Glu Trp Arg		
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Ser Ile Asp Gly Ser Ile Val Leu Pro Leu Xaa Pro Gly Ala Pro Gln		
370	375	380
Arg His Trp Pro Trp Ser Thr His Xaa Cys Leu Thr Gly Asp Gly Leu		
385	390	395
Ala His Leu Gln Ala Thr Asp Pro Gln Gln Leu Leu Arg Leu Ile Pro		
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His Val Gln Val Phe Ala Arg Val Ala Pro Lys Gln Lys Glu Phe Val		
420	425	430
Ile Thr Ser Leu Lys Glu Leu Gly Tyr Val Thr Leu Met Cys Gly Asp		
435	440	445
Gly Thr Asn Asp Val Gly Ala Leu Lys His Ala Asp Val Gly Val Ala		
450	455	460
Leu Leu Ala Asn Ala Pro Glu Arg Val Val Glu Arg Arg Arg Arg Pro		
465	470	475
Arg Asp Ser Pro Thr Leu Ser Asn Ser Gly Ile Arg Ala Thr Ser Arg		
485	490	495
Thr Ala Lys Gln Arg Ser Gly Leu Pro Pro Ser Glu Glu Gln Pro Thr		
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Ser Gln Arg Asp Arg Leu Ser Gln Val Leu Arg Asp Leu Glu Asp Glu		
515	520	525
Ser Thr Pro Ile Val Lys Leu Gly Asp Ala Ser Ile Ala Ala Pro Phe		
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Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His Val Ile Lys Gln		
545	550	555
Gly Arg Cys Thr Leu Val Thr Thr Leu Gln Met Phe Lys Ile Leu Ala		
565	570	575
Leu Asn Ala Leu Ile Leu Ala Tyr Ser Gln Ser Val Leu Tyr Leu Glu		
580	585	590
Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln Gly Leu Leu Leu		
595	600	605
Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro Leu Lys Thr Leu		
610	615	620
Ser Arg Glu Arg Pro Leu Pro Asn Ile Phe Asn Leu Tyr Thr Ile Leu		

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625          630          635          640
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Tyr Arg Glu Ala Gln Ala Arg Ser Pro Xaa Arg Xaa Gln Glu Gln Phe
          660          665          670
Val Asp Leu Tyr Lys Glu Phe Glu Pro Ser Leu Val Asn Ser Thr Val
          675          680          685
Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala Ile Asn Tyr
          690          695          700
Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val
          705          710          715          720
Trp Ser Leu Ala Val Ser Leu Leu Ala Ile Ile Gly Leu Leu Leu Gly
          725          730          735
Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val
          740          745          750
Glu Phe Lys Leu Val Ile Ala Gln Val Leu Leu Leu Asp Phe Cys Leu
          755          760          765
Ala Leu Leu Ala Asp Arg Val Leu Gln Phe Phe Leu Gly Thr Pro Lys
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Leu Lys Val Pro Ser
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<210> 4087

<211> 959

<212> DNA

<213> Homo sapiens

<400> 4087

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240
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780

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 <212> PRT  
 <213> Homo sapiens

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 Ala Val Ala Arg Val Arg Ser Ala Gly Pro Ser Cys Gln Asn Lys Gly  
 35 40 45  
 Asp Leu Val Met Glu Ala Leu Leu Glu Gly Ile Gln Asn Arg Gly His  
 50 55 60  
 Gly Gly Gly Phe Leu Thr Ser Cys Glu Ala Glu Leu Gln Glu Leu Met  
 65 70 75 80  
 Lys Gln Ile Asp Ile Met Val Ala His Lys Lys Ser Glu Trp Glu Gly  
 85 90 95  
 Arg Thr His Ala Leu Glu Thr Cys Leu Lys Ile Arg Glu Gln Glu Leu  
 100 105 110  
 Lys Ser Leu Arg Ser Gln Leu Asp Val Thr His Lys Glu Val Gly Met  
 115 120 125  
 Leu His Gln Gln Val Glu Glu His Glu Lys Ile Lys Gln Glu Met Thr  
 130 135 140  
 Met Glu Tyr Lys Gln Glu Leu Lys Lys Leu His Glu Glu Leu Cys Ile  
 145 150 155 160  
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 165 170 175  
 Arg Gly Asn Thr Lys Asn His Arg Glu Asp Arg Ser Glu Ile Glu Arg  
 180 185 190  
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 195 200 205  
 Lys Gln Arg Leu Ile Tyr Gln Gln Gln Val Ser Ser Leu Glu Ala Gln  
 210 215 220  
 Arg Lys Ala Leu Ala Glu Gln Ser Glu Ile Ile Gln Ala Gln Leu Val  
 225 230 235 240  
 Asn Arg Lys Gln Lys Leu Glu Ser Val Glu Leu Ser Ser Gln Ser Glu  
 245 250 255  
 Ile Gln His Leu Ser Ser Lys Leu Glu Arg Ala Asn Asp Thr Ile Cys  
 260 265 270  
 Ala Asn Glu Leu Glu Ile Glu Arg Leu Thr Met Arg Val Asn Asp Leu  
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<210> 4089  
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 <212> DNA  
 <213> Homo sapiens

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<210> 4090  
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 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser  
 35 40 45  
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile  
 50 55 60  
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu  
 65 70 75 80  
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 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys  
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<210> 4091  
 <211> 1526  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4092

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4092

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Arg Gly Gly Val Arg Gly Ala Arg Gln Gly Arg Ala Pro Gly Ser Ser
 35           40           45
Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
 50           55           60
Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
 65           70           75           80
Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
 85           90           95
Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
100           105           110
Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
115           120           125
Lys Gln His Ile Gln Gly Tyr Arg Arg Asn Phe Ser Leu Leu Asn Val
130           135           140
Ser Asn
145

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&lt;210&gt; 4093

&lt;211&gt; 1519

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4093

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720

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&lt;210&gt; 4094

&lt;211&gt; 391

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4094

Met	Gly	Asn	Ala	Gly	Ser	Met	Asp	Ser	Gln	Gln	Thr	Asp	Phe	Arg	Ala
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His	Asn	Val	Pro	Leu	Lys	Leu	Pro	Met	Pro	Glu	Pro	Gly	Glu	Leu	Glu
			20					25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
	50					55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65				70					75					80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85					90						95	
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115				120					125				
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
	130					135					140				
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

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145          150          155          160
Ser Val Asp Lys Ser Lys Pro Trp Ser Arg Ser Ile Glu Asp Leu His
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Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
          180          185          190
Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
          195          200          205
Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
          210          215          220
Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
225          230          235          240
Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
          245          250          255
Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala
          260          265          270
Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
          275          280          285
Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
          290          295          300
Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
305-----310-----315-----320
Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
          325          330          335
Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
          340          345          350
Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
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Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp
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Ala Glu Thr Lys Asn Ala Ala
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<210> 4095  
 <211> 253  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 253

<210> 4096  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 4096

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 Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Gly Phe Ser Ser Thr Val  
 20 25 30  
 Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala  
 35 40 45  
 Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val  
 50 55 60  
 Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile  
 65 70 75 80  
 Cys Ala Arg

&lt;210&gt; 4097

&lt;211&gt; 1385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4097

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 240  
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 360  
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 720  
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 780  
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 840  
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 1020

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 1080  
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 1200  
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 1260  
 ctacacttaa tttgaagatt aaaattctac attgtggaaa acaattgaat ttattgggaa  
 1320  
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 gttca  
 1385

&lt;210&gt; 4098

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4098

Ser	Gly	Ala	Arg	Ser	Pro	Glu	Pro	Arg	Ala	Gly	Gln	Pro	Pro	Gly	Glu
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Glu	Pro	Arg	Ala	Leu	Gly	Arg	Val	Pro	Arg	Thr	Gly	Thr	Ala	Gly	Ala
			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
			35				40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
			50			55					60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Thr	Lys	Lys	Lys	
65					70				75					80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90						95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
			115				120						125		
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
			130			135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145					150					155				160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165						170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180					185					190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
		195					200					205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
		210				215						220			
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225				230						235				240	
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<210> 4099  
 <211> 511  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 300  
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 420  
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 511

<210> 4100  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 4100  
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 Gly Phe Asp Leu Leu His Leu Ile Gln Gln Lys Asp Thr Lys Gln His  
 35 40 45  
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala  
 50 55 60  
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile  
 65 70 75 80  
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu  
 85 90 95  
 Pro Glu Phe His  
 100

<210> 4101  
 <211> 536  
 <212> DNA  
 <213> Homo sapiens

<400> 4101



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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

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Arg	Val	Cys	Thr	Arg	Tyr	Lys	Ile	Gln	Glu	Arg	Trp	His	Thr	Ala	Asp
			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
		35					40					45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
		50				55					60				
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
		65			70				75				80		
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
			85					90					95		
Glu	Gly	Arg	Thr	Arg	Arg	Arg	Thr	Arg	Arg						
			100					105							

<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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&lt;210&gt; 4104

&lt;211&gt; 978

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4104

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		20					25					30			
Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
		35				40					45				
Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ile	Lys	Lys	Lys	Ser	Gln	Glu	Glu	Arg
	50				55				60						
Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

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Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Lys	Ser
				85					90					95	
Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly	Tyr
				100				105						110	
Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile	Leu
				115			120					125			
Ser	Ser	Gln	Ala	Glu	Gly	Leu	Ala	Asn	Gly	Pro	Asp	Val	Leu	Glu	Thr
				130			135				140				
Asp	Gly	Leu	Gln	Glu	Val	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Thr	Pro
				145		150				155				160	
Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala	Thr
				165					170					175	
Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Val	Lys
				180				185						190	
Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Leu	Cys
				195			200						205		
Glu	Asp	His	Arg	Gly	Arg	Met	Val	Lys	His	Gln	Cys	Cys	Pro	Gly	Cys
				210			215				220				
Gly	Tyr	Phe	Cys	Thr	Ala	Gly	Asn	Phe	Met	Glu	Cys	Gln	Pro	Glu	Ser
				225		230				235				240	
Ser	Ile	Ser	His	Arg	Phe	His	Lys	Asp	Cys	Ala	Ser	Arg	Val	Asn	Asn
				245				250						255	
Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Glu	Ser	Ser	Lys	Ala	Lys	Glu
				260				265						270	
Val	Thr	Ile	Ala	Lys	Ala	Asp	Thr	Thr	Ser	Thr	Val	Thr	Pro	Val	Pro
				275			280						285		
Gly	Gln	Glu	Lys	Gly	Ser	Ala	Xaa	Gly	Gly	Arg	Ala	Asp	Thr	Thr	Thr
				290			295				300				
Gly	Ser	Ala	Xaa	Pro	Gly	His	His	Ser	Arg	Arg	Thr	Thr	Ser	Cys	Arg
				305		310				315				320	
Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro	Ala
				325					330					335	
Gly	Leu	Gly	Arg	Pro	Thr	Pro	Gly	Leu	Ser	Gln	Gly	Pro	Gly	Lys	Glu
				340			345						350		
Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys	Lys
				355			360						365		
Leu	Arg	Phe	His	Pro	Lys	Gln	Leu	Tyr	Phe	Ser	Ala	Arg	Gln	Gly	Glu
				370			375				380				
Leu	Gln	Lys	Val	Leu	Leu	Met	Leu	Val	Asp	Gly	Ile	Asp	Pro	Asn	Phe
				385		390				395				400	
Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Ala	Glu
				405						410				415	
Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala	Asn
				420				425					430		
Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala	Ala
				435			440					445			
Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly	Ala
				450			455					460			
Leu	Val	Asp	Pro	Lys	Asp	Ala	Glu	Gly	Ser	Thr	Cys	Leu	His	Leu	Ala
				465		470				475				480	
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 Trp Glu Val Arg Tyr Glu Pro Asp Ser Lys Ala Phe Gly Val Gly Val

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Ser Trp Cys Leu His Ser Thr Ile Gly Cys Arg Ser Ala Ser Arg Lys		80
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His Ala Asn Lys Val Lys Val Leu Asp Ala Pro Val Pro Asp Cys Leu		95
	100	105
Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala		110
	115	120
Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro		125
	130	135
Leu Leu Pro Ala Phe Thr Val Trp Cys Gly Ser Phe Gln Val Thr Thr		140
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Gly Leu Gln Val Pro Ser Ala Val Arg Cys Leu Gln Lys Arg Gly Ser		160
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Ala Thr Ser Ser Ser Asn Thr Ser Leu Thr		175
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&lt;211&gt; 1442

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4107

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 Gly Tyr Ala Val Tyr Glu Thr Pro Thr Ala His Asn Gly Ala Lys Asn  
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Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg		240
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Gly Asn Lys Asp Ala Ala Ile Asn Ser Leu Leu Gln Met Gly Glu Glu		255
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Pro

&lt;210&gt; 4109

&lt;211&gt; 1637

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4109

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<211> 375

<212> PRT

<213> Homo sapiens

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Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
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Gly	Pro	Asn	Gly	Val	Trp	Thr	Leu	Leu	Gln	Lys	Gly	Arg	Ser	Val	Ser
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Ala	Ala	Asp	Leu	Ser	Glu	Ala	Glu	Pro	Thr	Leu	Thr	His	Met	Ser	Ile
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 Asp Thr Arg Arg Leu Ser Phe Leu Val Ser Tyr Ile Ala Ser Lys Lys  
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 His Pro Leu Asp Pro Ile Asp Thr Val Asp Phe Glu Arg Glu Cys Gly  
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 Val Gly Val Ile Val Thr Pro Glu Gln Ile Glu Glu Ala Val Glu Ala  
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 Arg Gly Glu Ala Leu Lys Phe His Lys Pro Gly Glu Asn Tyr Lys Thr  
 225 230 235 240  
 Pro Gly Tyr Val Val Thr Pro His Thr Met Asn Leu Leu Lys Gln His  
 245 250 255  
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 260 265 270  
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 275 280 285  
 Gly Tyr Ala Lys Ala Asn Asn Gly Ile Cys Phe Leu Arg Phe Asp Asp  
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 Thr Asn Pro Glu Lys Glu Glu Ala Lys Phe Phe Thr Ala Ile Cys Asp  
 305 310 315 320  
 Met Val Ala Trp Leu Gly Tyr Thr Pro Tyr Lys Val Thr Tyr Ala Ser

325															330					335			
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Asn	Thr	Leu	Pro	Ser	Pro	Trp	Arg	Asp	Arg	Pro	Met	Glu	Glu	Ser	Leu								
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Leu	Leu	Phe	Glu	Ala	Met	Arg	Lys	Gly	Lys	Phe	Ser	Glu	Gly	Glu	Ala								
385															390					400			
Thr	Leu	Arg	Met	Lys	Leu	Val	Met	Glu	Asp	Gly	Lys	Met	Asp	Pro	Val								
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Ala	Tyr	Arg	Val	Lys	Tyr	Thr	Pro	His	His	Arg	Thr	Gly	Asp	Lys	Trp								
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Cys	Ile	Tyr	Pro	Thr	Tyr	Asp	Tyr	Thr	His	Cys	Leu	Cys	Asp	Ser	Ile								
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Glu	His	Ile	Thr	His	Ser	Leu	Cys	Thr	Lys	Glu	Phe	Gln	Ala	Arg	Arg								
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Lys	Pro	Lys	Ala	Phe	Ile	His	Trp	Val	Ser	Gln	Pro	Leu	Met	Cys	Glu								
675															680					685			
Val	Arg	Leu	Tyr	Glu	Arg	Leu	Phe	Gln	His	Lys	Asn	Pro	Glu	Asp	Pro								
690															695					700			
Thr	Glu	Val	Pro	Gly	Gly	Phe	Leu	Ser	Asp	Leu	Asn	Leu	Ala	Ser	Leu								
705															710					715			
His	Val	Val	Asp	Ala	Ala	Leu	Val	Asp	Cys	Ser	Val	Ala	Leu	Ala	Lys								
725															730					735			
Pro	Phe	Asp	Lys	Phe	Gln	Phe	Glu	Arg	Leu	Gly	Tyr	Phe	Ser	Val	Asp								
740															745					750			
Pro	Asp	Ser	His	Gln	Gly	Lys	Leu	Val	Phe	Asn	Arg	Thr	Val	Thr	Leu								

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Lys Glu Asp Pro Gly Lys Val  
770 775

765

<210> 4113  
<211> 1894  
<212> DNA  
<213> Homo sapiens

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180  
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240  
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1260  
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1320

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<210> 4114

<211> 389

<212> PRT

<213> Homo sapiens

<400> 4114

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			20					25					30		
Lys	Ala	Leu	Cys	Thr	Ala	His	Glu	Lys	Phe	Cys	Phe	Trp	Pro	Asp	Ser
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Pro	Ser	Pro	Asp	Arg	Phe	Gly	Met	Leu	Pro	Leu	Asp	Glu	Pro	Ala	Ile
		50				55					60				
Leu	Val	Ser	Glu	Phe	Leu	Asp	Arg	Phe	Gln	Ser	Leu	Cys	His	Leu	Asp
65					70				75					80	
Leu	Gln	Leu	Pro	Ser	Leu	Arg	Pro	Glu	Asp	Leu	Lys	Thr	Met	Cys	Leu
			85					90						95	
Thr	Glu	Asp	Lys	Ile	Ser	Leu	Leu	Leu	His	Leu	Leu	Glu	Asp	Glu	Leu
			100					105						110	
Asp	His	Arg	Thr	Asp	Glu	Arg	Lys	Thr	Thr	Ile	Lys	Leu	Gly	Ser	Asp
		115					120					125			
Ile	Gln	Val	His	Val	Thr	Ala	Cys	Ile	Leu	Ser	Val	Cys	Gly	Trp	Ala
		130				135					140				
Cys	Ser	Ser	Ser	Leu	Glu	Ser	Met	Gln	Leu	Ser	Leu	Ile	Ala	Cys	Ser
145					150					155				160	
Gln	Cys	Met	Arg	Lys	Val	Gly	Leu	Trp	Gly	Phe	Gln	Gln	Ile	Glu	Ser
			165					170						175	
Ser	Met	Thr	Asp	Leu	Asp	Ala	Ser	Phe	Gly	Leu	Thr	Ser	Ser	Pro	Ile
			180					185						190	
Pro	Gly	Leu	Gly	Arg	Pro	Glu	Arg	Leu	Pro	Leu	Val	Pro	Glu	Ser	
		195				200					205				
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      210              215              220
Ser Glu Gln Ala Glu Lys Ser Pro Gly Pro Ile Val Ser Arg Thr Arg
225              230              235              240
Ser Trp Asp Ser Ser Pro Val Asp Arg Pro Glu Pro Glu Ala Ala
      245              250              255
Ser Pro Thr Thr Arg Thr Arg Pro Val Thr Arg Ser Met Gly Thr Gly
      260              265              270
Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln
      275              280              285
Ala Ser Ser Leu Cys Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser
      290              295              300
Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn
305              310              315              320
Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp
      325              330              335
Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu
      340              345              350
Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser
      355              360              365
Leu Ser Glu Lys Ser Arg Lys Val Phe Arg Ile Phe Arg Gln Trp Glu
      370              375              380
Ser Leu Cys Ser Cys
385

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<210> 4115  
 <211> 1056  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 300  
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 360  
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 960  
 ccttttatca ttattcacac tectctgccc tctgatttga tgaagttgaa aattgttgcg  
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<210> 4116  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 4116  
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 35 40 45  
 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln  
 50 55 60  
 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe  
 65 70 75 80  
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg  
 85 90 95  
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu  
 100 105 110  
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn  
 115 120 125  
 Leu Leu Asn Glu Gln Asn Cys Val Thr His Ser Lys Ala Asn His Ser  
 130 135 140  
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<210> 4117  
 <211> 973  
 <212> DNA  
 <213> Homo sapiens

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<210> 4118  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 4118  
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 35 40 45  
 Arg Cys Val Gly Cys Pro Arg Pro Ala Arg Pro Ala Ser Pro Ser Pro  
 50 55 60  
 Gly Glu Ala Thr Pro Pro Pro Ser Ser Gly Ile Ser Ala Val Lys Pro  
 65 70 75 80  
 Pro Leu Arg Ser Pro Arg Thr Leu Pro Leu Glu Leu Gly Thr Gly Gly  
 85 90 95  
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 115 120 125

<210> 4119  
 <211> 649  
 <212> DNA  
 <213> Homo sapiens

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 120  
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<210> 4120  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 4120  
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 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr  
 35 40 45  
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu  
 50 55 60  
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala  
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 His Ser Leu His  
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<210> 4121  
 <211> 2490  
 <212> DNA  
 <213> Homo sapiens

<400> 4121  
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&lt;210&gt; 4122

&lt;211&gt; 494

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4122

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Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
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Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
225          230          235          240
Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
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Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
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His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
          275          280          285
Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
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Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg
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Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
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Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
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Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu
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Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg
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          405          410          415
Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu
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          450          455          460
Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
465          470          475          480
Cys Gln Ala Ala Leu Leu Leu Cys Ser Trp Arg Ala Ala Leu
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&lt;210&gt; 4123

&lt;211&gt; 1095

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4123

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&lt;210&gt; 4124

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4124

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His	Ile	Ala	Ala	Phe	Gly	Gly	His	Pro	Gln	Cys	Leu	Val	Trp	Leu	Ile



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Gln	Ala	Gly	Ala	Asn	Ile
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<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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 1800  
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 1980  
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 2040  
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 2100  
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 2160  
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 2189

&lt;210&gt; 4128

&lt;211&gt; 445

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4128

Pro	Cys	Phe	Leu	Pro	Ser	Ala	Thr	Ser	Lys	Leu	Ser	Gly	Ala	Val	Glu
1			5					10					15		
Gln	Trp	Leu	Ser	Ala	Ala	Glu	Arg	Leu	Tyr	Gly	Pro	Tyr	Met	Trp	Gly
		20					25					30			
Arg	Tyr	Asp	Ile	Val	Phe	Leu	Pro	Pro	Ser	Phe	Pro	Ile	Val	Ala	Met
	35					40					45				
Glu	Asn	Pro	Cys	Leu	Thr	Phe	Ile	Ile	Ser	Ser	Ile	Leu	Glu	Ser	Asp

50	55	60
Glu Phe Leu Val Ile Asp Val Ile His Glu Val Ala His Ser Trp Phe		
65	70	75
Gly Asn Ala Val Thr Asn Ala Thr Trp Glu Glu Met Trp Leu Ser Glu		80
	85	90
Gly Leu Ala Thr Tyr Ala Gln Arg Arg Ile Thr Thr Glu Thr Tyr Gly		95
	100	105
Ala Ala Phe Thr Cys Leu Glu Thr Ala Phe Arg Leu Asp Ala Leu His		110
	115	120
Arg Gln Met Lys Leu Leu Gly Glu Asp Ser Pro Val Ser Lys Leu Gln		125
	130	135
Val Lys Leu Glu Pro Gly Val Asn Pro Ser His Leu Met Asn Leu Phe		140
145	150	155
Thr Tyr Glu Lys Gly Tyr Cys Phe Val Tyr Tyr Leu Ser Gln Leu Cys		160
	165	170
Gly Asp Pro Gln Arg Phe Asp Asp Phe Leu Arg Ala Tyr Val Glu Lys		175
	180	185
Tyr Lys Phe Thr Ser Val Val Ala Gln Asp Leu Leu Asp Ser Phe Leu		190
	195	200
Ser Phe Phe Pro Glu Leu Lys Glu Gln Ser Val Asp Cys Arg Ala Gly		205
	210	215
Leu Glu Phe Glu Arg Trp Leu Asn Ala Thr Gly Pro Pro Leu Ala Glu		220
225	230	235
Pro Asp Leu Ser Gln Gly Ser Ser Leu Thr Arg Pro Val Glu Ala Leu		240
	245	250
Phe Gln Leu Trp Thr Ala Glu Pro Leu Asp Gln Ala Ala Ser Ala		255
	260	265
Ser Ala Ile Asp Ile Ser Lys Trp Arg Thr Phe Gln Thr Ala Leu Phe		270
	275	280
Leu Asp Arg Leu Leu Asp Gly Ser Pro Leu Pro Gln Glu Val Val Met		285
	290	295
Ser Leu Ser Lys Cys Tyr Ser Ser Leu Leu Asp Ser Met Asn Ala Glu		300
305	310	315
Ile Arg Ile Arg Trp Leu Gln Ile Val Val Arg Asn Asp Tyr Tyr Pro		320
	325	330
Asp Leu His Arg Val Arg Arg Phe Leu Glu Ser Gln Met Ser Arg Met		335
	340	345
Tyr Thr Ile Pro Leu Tyr Glu Asp Leu Cys Thr Gly Ala Leu Lys Ser		350
	355	360
Phe Ala Leu Glu Val Phe Tyr Gln Thr Gln Gly Arg Leu His Pro Asn		365
	370	375
Leu Arg Arg Ala Ile Gln Gln Ile Leu Ser Gln Gly Leu Gly Ser Ser		380
385	390	395
Thr Glu Pro Ala Ser Glu Pro Ser Thr Glu Leu Gly Lys Ala Glu Ala		400
	405	410
Asp Thr Asp Ser Asp Ala Gln Ala Leu Leu Leu Gly Asp Glu Ala Pro		415
	420	425
Ser Ser Ala Ile Ser Leu Arg Asp Val Asn Val Ser Ala		430
	435	440
		445

&lt;210&gt; 4129

&lt;211&gt; 1749

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



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120  
cgccctgtc ctgggagtc cttggcccaa acaccacct gacttagtggt ctctctgca  
180  
ggaaagggg ctgccccctg cgttcctcca tccaatcatg agctgggtgcc catcaccact  
240  
gagaatgcac cagagaatgt agtggaccag ggagcaggag cctcccgagg tggaacaca  
300  
cgaaaagcc tcgaggacaa cggctccacc agggtcaccc cgagtgtcca gcccacctc  
360  
cagcccatca gaaacatgag tgtgagccgg accatggagg acagctgtga gctggacctg  
420  
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480  
ttccggagca acctccgtga ggtggcgag atgctcaagt ccaaacatgg aggcaactac  
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720  
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780  
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840  
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900  
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960  
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1020  
gtgtacacat ctggcatcta caacatccca ggagacagcc agactagcgt ctgcatcacc  
1080  
atcgagccag gactgctctt gaaggagac atcttctgta agtgctacca caagaagttc  
1140  
cgaagcccag cccgagacgt catcttccgt gtgcagttcc acacctgtgc catccatgcc  
1200  
tggggggttg tctttgggaa ggaggacct gatgatgctt tcaaagatga tcgatttcca  
1260  
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1320  
cacctggaga acgggcccag cgtgtctgtg gactataaca cctccgacct cctcatccgc  
1380  
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cacggcagca ccggggctgt taatgccaca cgtcctacac tgtcggccac cccaaccac  
1560

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 1620  
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 1749

<210> 4130  
 <211> 523  
 <212> PRT  
 <213> Homo sapiens

<400> 4130  
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 20 25 30  
 Val Val Asp Gln Gly Ala Gly Ala Ser Arg Gly Gly Asn Thr Arg Lys  
 35 40 45  
 Ser Leu Glu Asp Asn Gly Ser Thr Arg Val Thr Pro Ser Val Gln Pro  
 50 55 60  
 His Leu Gln Pro Ile Arg Asn Met Ser Val Ser Arg Thr Met Glu Asp  
 65 70 75 80  
 Ser Cys Glu Leu Asp Leu Val Tyr Val Thr Glu Arg Ile Ile Ala Val  
 85 90 95  
 Ser Phe Pro Ser Thr Ala Asn Glu Glu Asn Phe Arg Ser Asn Leu Arg  
 100 105 110  
 Glu Val Ala Gln Met Leu Lys Ser Lys His Gly Gly Asn Tyr Leu Leu  
 115 120 125  
 Phe Asn Leu Ser Glu Arg Arg Pro Asp Ile Thr Lys Leu His Ala Lys  
 130 135 140  
 Val Leu Glu Phe Gly Trp Pro Asp Leu His Thr Pro Ala Leu Glu Lys  
 145 150 155 160  
 Ile Cys Ser Ile Cys Lys Ala Met Asp Thr Trp Leu Asn Ala Asp Pro  
 165 170 175  
 His Asn Val Val Val Leu His Asn Lys Gly Asn Arg Gly Arg Ile Gly  
 180 185 190  
 Val Val Ile Ala Ala Tyr Met His Tyr Ser Asn Ile Ser Ala Ser Ala  
 195 200 205  
 Asp Gln Ala Leu Asp Arg Phe Ala Met Lys Arg Phe Tyr Glu Asp Lys  
 210 215 220  
 Ile Val Pro Ile Gly Gln Pro Ser Gln Arg Arg Tyr Val His Tyr Phe  
 225 230 235 240  
 Ser Gly Leu Leu Ser Gly Ser Ile Lys Met Asn Asn Lys Pro Leu Phe  
 245 250 255  
 Leu His His Val Ile Met His Gly Ile Pro Asn Phe Glu Ser Lys Gly  
 260 265 270  
 Gly Cys Arg Pro Phe Leu Arg Ile Tyr Gln Ala Met Gln Pro Val Tyr  
 275 280 285  
 Thr Ser Gly Ile Tyr Asn Ile Pro Gly Asp Ser Gln Thr Ser Val Cys  
 290 295 300  
 Ile Thr Ile Glu Pro Gly Leu Leu Leu Lys Gly Asp Ile Leu Leu Lys

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305          310          315          320
Cys Tyr His Lys Lys Phe Arg Ser Pro Ala Arg Asp Val Ile Phe Arg
          325          330          335
Val Gln Phe His Thr Cys Ala Ile His Ala Trp Gly Val Val Phe Gly
          340          345          350
Lys Glu Asp Leu Asp Asp Ala Phe Lys Asp Asp Arg Phe Pro Glu Tyr
          355          360          365
Gly Lys Val Glu Phe Val Phe Ser Tyr Gly Pro Glu Lys Ile Gln Gly
          370          375          380
Met Glu His Leu Glu Asn Gly Pro Ser Val Ser Val Asp Tyr Asn Thr
          385          390          395          400
Ser Asp Pro Leu Ile Arg Trp Asp Ser Tyr Asp Asn Phe Ser Gly His
          405          410          415
Arg Asp Asp Gly Met Glu Glu Val Val Gly His Thr Gln Gly Pro Leu
          420          425          430
Asp Gly Ser Leu Tyr Ala Lys Val Lys Lys Lys Asp Ser Leu His Gly
          435          440          445
Ser Thr Gly Ala Val Asn Ala Thr Arg Pro Thr Leu Ser Ala Thr Pro
          450          455          460
Asn His Val Glu His Thr Leu Ser Val Ser Ser Asp Ser Gly Asn Ser
465-----470-----475-----480
Thr Ala Ser Thr Lys Thr Asp Lys Thr Asp Glu Pro Val Pro Gly Ala
          485          490          495
Ser Ser Ala His Ala Ala Arg Thr Val Thr Ile Leu Val Trp Gln Phe
          500          505          510
Ile Val Gln Asp Val Cys Leu Pro Leu Arg Cys
          515          520

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<210> 4131  
<211> 608  
<212> DNA  
<213> Homo sapiens

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120
aaaggcctga gaccggttta tgaagagctc gactctgact ccgaggacct agacccaat
180
cctgaagatc tggaccgggt ttctgaagac ccagagcctg atcctgaaga cctcaacact
240
gtcccggaag acgtggaccc cagctatgaa gatctggagc ccgtctcgga ggatctggac
300
cccgcgcgcg aagctccggg ctcggaaccc caagatcccg accccatgtc ttcgagtttc
360
gacctcgatc cagatgtgat tggccccgta ccctgattc tcgatacctaa cagcgacacc
420
ctcagccccg gcgatccaaa agtggacccc nnatctctc tggectcact gcgagcccc
480
aggctctggc caccagcccc gcggtgctcc ccgccccgc cagcccgccc cggcccttct
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600

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608

<210> 4132  
<211> 194  
<212> PRT  
<213> Homo sapiens

<400> 4132  
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20 25 30  
Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu  
35 40 45  
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu  
50 55 60  
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr  
65 70 75 80  
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser  
85 90 95  
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp  
100 105 110  
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly  
115 120 125  
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly  
130 135 140  
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro  
145 150 155 160  
Arg Ser Trp Pro Pro Ala Pro Arg Cys Ser Pro Pro Pro Ala Arg  
165 170 175  
Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala  
180 185 190  
Pro Gly

<210> 4133  
<211> 1646  
<212> DNA  
<213> Homo sapiens

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120  
gaaatgggct gggagacaca gaaaatgggt gccacagtt cctgggatcc ctctggaat  
180  
cctgggtttc ctctctagga ccctgcaagg taccctacgt gcctcttgga accccccccc  
240  
accccggagg tccaaggaa cccagtttga gaaccaaggc tttaggccaa ggacttcctt  
300  
gcacaagaag gtgcagatgt acagggatgg ttcagacagt ggcctcaacc tcaatggctt  
360

caccctctc ctccagcagg ctgtaggaag catggctctg gcaaggccgc tgcagggggg  
 420  
 gggccaacag ttccgccatg cagttgtgca actccagggc tggcccagcc agtgccacct  
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 aatatgggca ctggaacatt ttcttcatgg gctccgtcaa ggagaactgg ggctggcaag  
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 780  
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 840  
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 900  
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 1080  
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 1620  
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 1646

&lt;210&gt; 4134

&lt;211&gt; 329

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4134

Met Glu Val Ala Glu Pro Ser Ser Pro Thr Glu Glu Glu Glu Glu  
 1 5 10 15  
 Glu Glu His Ser Ala Glu Pro Arg Pro Arg Thr Arg Ser Asn Pro Glu

Gly	Ala	Glu	Asp	Arg	Ala	Val	Gly	Ala	Gln	Ala	Ser	Val	Gly	Ser	Arg				
		35					40					45							
Ser	Glu	Gly	Glu	Gly	Glu	Ala	Ala	Ser	Ala	Asp	Asp	Gly	Ser	Leu	Asn				
	50					55					60								
Thr	Ser	Gly	Ala	Gly	Pro	Lys	Ser	Trp	Gln	Val	Pro	Pro	Pro	Ala	Pro				
65					70					75					80				
Glu	Val	Gln	Ile	Arg	Thr	Pro	Arg	Val	Asn	Cys	Pro	Glu	Lys	Val	Ile				
			85						90					95					
Ile	Cys	Leu	Asp	Leu	Ser	Glu	Glu	Met	Ser	Leu	Pro	Lys	Leu	Glu	Ser				
			100					105					110						
Phe	Asn	Gly	Ser	Lys	Thr	Asn	Ala	Leu	Asn	Val	Ser	Gln	Lys	Met	Ile				
		115					120					125							
Glu	Met	Phe	Val	Arg	Thr	Lys	His	Lys	Ile	Asp	Lys	Ser	His	Glu	Phe				
	130					135					140								
Ala	Leu	Val	Val	Val	Asn	Asp	Asp	Thr	Ala	Trp	Leu	Ser	Gly	Leu	Thr				
145					150					155					160				
Ser	Asp	Pro	Arg	Glu	Leu	Cys	Ser	Cys	Leu	Tyr	Asp	Leu	Glu	Thr	Ala				
				165					170						175				
Ser	Cys	Ser	Thr	Phe	Asn	Leu	Glu	Gly	Leu	Phe	Ser	Leu	Ile	Gln	Gln				
			180					185					190						
Lys	Thr	Glu	Leu	Pro	Val	Thr	Glu	Asn	Val	Gln	Thr	Ile	Pro	Pro	Pro				
		195					200					205							
Tyr	Val	Val	Arg	Thr	Ile	Leu	Val	Tyr	Ser	Arg	Pro	Pro	Cys	Gln	Pro				
	210					215					220								
Gln	Phe	Ser	Leu	Thr	Glu	Pro	Met	Lys	Lys	Met	Phe	Gln	Cys	Pro	Tyr				
225					230					235					240				
Phe	Phe	Phe	Asp	Val	Val	Tyr	Ile	His	Asn	Gly	Thr	Glu	Glu	Lys	Glu				
				245					250					255					
Glu	Glu	Met	Ser	Trp	Lys	Asp	Met	Phe	Ala	Phe	Met	Gly	Ser	Leu	Asp				
			260					265					270						
Thr	Lys	Gly	Thr	Ser	Tyr	Lys	Tyr	Glu	Val	Ala	Leu	Ala	Gly	Pro	Ala				
	275						280					285							
Leu	Glu	Leu	His	Asn	Cys	Met	Ala	Lys	Leu	Leu	Ala	His	Pro	Leu	Gln				
	290					295					300								
Arg	Pro	Cys	Gln	Ser	His	Ala	Ser	Tyr	Ser	Leu	Leu	Glu	Glu	Glu	Asp				
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Glu	Ala	Ile	Glu	Val	Glu	Ala	Thr	Val											

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<210> 4135
<211> 388
<212> DNA
<213> Homo sapiens
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120
tctgccattg etggaaaaac tgaccacagg ccggattgca gagctgctat ctcccgacta
180
catggatctt gaggaccacac gaccaatctt tgactggatg cagatcatcc gcaaacgggc
240
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agtggtctat gtcggcctgg acgctttatc tgatacagag gtagctgcag cggtagggcaa  
 300  
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 360  
 tggcttgccc ggggccaccg gcggcaag  
 388

<210> 4136  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 4136  
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 Arg Ser Ala Val Arg Tyr Asp Lys Thr Tyr Phe Asp Lys Ile Val Ala  
 20 25 30  
 Ser Leu Leu Pro Leu Leu Glu Lys Leu Thr Thr Gly Arg Ile Ala Glu  
 35 40 45  
 Leu Leu Ser Pro Asp Tyr Met Asp Leu Glu Asp Pro Arg Pro Ile Phe  
 50 55 60  
 Asp Trp Met Gln Ile Ile Arg Lys Arg Ala Val Val Tyr Val Gly Leu  
 65 70 75 80  
 Asp Ala Leu Ser Asp Thr Glu Val Ala Ala Val Gly Asn Ser Met  
 85 90 95  
 Phe Ser Asp Leu Val Ser Val Ala Gly His Ile Tyr Lys Phe Gly Ile  
 100 105 110  
 Asp Asp Gly Leu Pro Gly Ala Thr Gly Gly Lys  
 115 120

<210> 4137  
 <211> 2255  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 420  
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 480  
 cttgagggag ttcttgagct gtcacaaaaa attctcgagg ctccggattt ctatgtgcag  
 540

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660  
aacatgagct ggataagagg gaggcgtagt tttatattta agggagaaga caactgggcg  
720  
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780  
caagaaatgg agcgcctcac tctggacttg atgaagccaa aaagcagggg agttgagcgg  
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cggctcacia gccctgtcat taacaccagc ctcgatacta aaaatattgc ttttgaaaga  
900  
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960  
gcaaaggttt acacagtaaa caatgtgaat gtgatcacca aaatacgcac agaacatctg  
1020  
accgaggagg aaaaaaagag atataaagca gacaggaacc cgctggaatc tttgctggga  
1080  
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1140  
~~aaacccacag ccattcacgcc tgatgagtac ttcaatgaag agtttgatct gnaaagacag~~  
1200  
ggacattggn aaggccgaaa gagctgacga ttagaacaca gaagtttaa gcaatgttgt  
1260  
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1320  
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1380  
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1440  
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&lt;210&gt; 4142

&lt;211&gt; 311

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4142

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<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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			20					25					30		
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Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
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Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
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Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
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Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
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&lt;400&gt; 4145

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&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4146

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4200

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&lt;210&gt; 4148

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4148

Met	Ala	Cys	Glu	Ile	Met	Pro	Leu	Gln	Ser	Ser	Gln	Glu	Asp	Glu	Arg
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Pro	Leu	Ser	Pro	Phe	Tyr	Leu	Ser	Ala	His	Val	Pro	Gln	Val	Ser	Asn
			20					25					30		
Val	Ser	Ala	Thr	Gly	Glu	Leu	Leu	Glu	Arg	Thr	Ile	Arg	Ser	Ala	Val
			35				40					45			
Glu	Gln	His	Leu	Phe	Asp	Val	Asn	Asn	Ser	Gly	Gly	Gln	Ser	Ser	Glu
			50				55				60				
Asp	Ser	Glu	Ser	Gly	Thr	Leu	Ser	Ala	Ser	Ser	Ala	Thr	Ser	Ala	Arg
			65				70			75				80	
Gln	Arg	Arg	Arg	Gln	Ser	Lys	Glu	Gln	Asp	Glu	Val	Arg	His	Gly	Arg
			85					90				95			
Asp	Lys	Gly	Leu	Ile	Asn	Lys	Glu	Asn	Thr	Pro	Ser	Gly	Phe	Asn	His
			100					105					110		
Leu	Asp	Asp	Cys	Ile	Leu	Asn	Thr	Gln	Glu	Val	Glu	Lys	Val	His	Lys
			115				120					125			
Asn	Thr	Phe	Gly	Cys	Ala	Gly	Glu	Arg	Ser	Lys	Pro	Lys	Arg	Gln	Lys
			130				135				140				
Ser	Ser	Thr	Lys	Leu	Ser	Glu	Leu	His	Asp	Asn	Gln	Asp	Gly	Leu	Val
			145				150			155				160	
Asn	Met	Glu	Ser	Leu	Asn	Ser	Thr	Arg	Ser	His	Glu	Arg	Thr	Gly	Pro
			165					170					175		
Asp	Asp	Phe	Glu	Trp	Met	Ser	Asp	Glu	Arg	Lys	Gly	Asn	Glu	Lys	Asp

										180				185				190			
Gly	Gly	His	Thr	Gln	His	Phe	Glu	Ser	Pro	Thr	Met	Lys	Ile	Gln	Glu						
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His	Pro	Ser	Leu	Ser	Asp	Thr	Lys	Gln	Gln	Arg	Asn	Gln	Asp	Ala	Gly						
										210				215				220			
Asp	Gln	Glu	Glu	Ser	Phe	Val	Ser	Glu	Val	Pro	Gln	Ser	Asp	Leu	Thr						
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Ala	Leu	Cys	Asp	Glu	Lys	Asn	Trp	Glu	Glu	Pro	Ile	Pro	Ala	Phe	Ser						
										245				250				255			
Ser	Trp	Gln	Arg	Glu	Asn	Ser	Asp	Ser	Asp	Glu	Ala	His	Leu	Ser	Pro						
										260				265				270			
Gln	Ala	Gly	Arg	Leu	Ile	Arg	Gln	Leu	Leu	Asp	Glu	Asp	Ser	Asp	Pro						
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Met	Leu	Ser	Pro	Arg	Phe	Tyr	Ala	Tyr	Gly	Gln	Ser	Arg	Gln	Tyr	Leu						
										290				295				300			
Asp	Asp	Thr	Glu	Val	Pro	Pro	Ser	Pro	Pro	Asn	Ser	His	Ser	Phe	Met						
										305				310				315			
Arg	Arg	Arg	Ser	Ser	Ser	Leu	Gly	Ser	Tyr	Asp	Asp	Glu	Gln	Glu	Asp						
										325				330				335			
Leu	Thr	Pro	Ala	Gln	Leu	Thr	Arg	Arg	Ile	Gln	Ser	Leu	Lys	Lys	Lys						
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Ile	Arg	Lys	Phe	Glu	Asp	Arg	Phe	Glu	Glu	Glu	Lys	Lys	Tyr	Arg	Pro						
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Ser	His	Ser	Asp	Lys	Ala	Ala	Asn	Pro	Glu	Val	Leu	Lys	Trp	Thr	Asn						
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Asp	Leu	Ala	Lys	Phe	Arg	Arg	Gln	Leu	Lys	Glu	Ser	Lys	Leu	Lys	Ile						
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Ser	Glu	Glu	Asp	Leu	Thr	Pro	Arg	Met	Arg	Gln	Arg	Ser	Asn	Thr	Leu						
										405				410				415			
Pro	Lys	Ser	Phe	Gly	Ser	Gln	Leu	Glu	Lys	Glu	Asp	Glu	Lys	Lys	Gln						
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Glu	Leu	Val	Asp	Lys	Ala	Ile	Lys	Pro	Ser	Val	Glu	Ala	Thr	Leu	Glu						
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Ser	Ile	Gln	Arg	Lys	Leu	Gln	Glu	Lys	Arg	Ala	Glu	Ser	Ser	Arg	Pro						
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Glu	Asp	Ile	Lys	Asp	Met	Thr	Lys	Asp	Gln	Ile	Ala	Asn	Glu	Lys	Val						
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Ala	Leu	Gln	Lys	Ala	Leu	Leu	Tyr	Tyr	Glu	Ser	Ile	His	Gly	Arg	Pro						
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Val	Thr	Lys	Asn	Glu	Arg	Gln	Val	Met	Lys	Pro	Leu	Tyr	Asp	Arg	Tyr						
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Arg	Leu	Val	Lys	Gln	Ile	Leu	Ser	Arg	Ala	Asn	Thr	Ile	Pro	Ile	Ile						
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Gly	Ser	Pro	Ser	Ser	Lys	Arg	Arg	Ser	Pro	Leu	Leu	Gln	Pro	Ile	Ile						
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Glu	Gly	Glu	Thr	Ala	Ser	Phe	Phe	Lys	Glu	Ile	Lys	Glu	Glu	Glu	Glu						
										545											

610	615	620
Leu Leu Glu His Leu Gln Glu Met Arg Glu Glu Lys Lys Arg Ile Arg		
625	630	635
Lys Lys Leu Arg Asp Phe Glu Asp Asn Phe Phe Arg Gln Asn Gly Arg		640
	645	650
Asn Val Gln Lys Glu Asp Arg Thr Pro Met Ala Glu Glu Tyr Ser Glu		655
	660	665
Tyr Lys His Ile Lys Ala Lys Leu Arg Leu Leu Glu Val Leu Ile Ser		670
	675	680
Lys Arg Asp Thr Asp Ser Lys Ser Met		685
690	695	

&lt;210&gt; 4149

&lt;211&gt; 1396

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4149

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180 cctcgacgct cgggtgcctgt atctactccg gggcctaggt cggctccggg ggcggcttag

240 gagaaggccg ccggcgagat gttcaaaaac acgttccaga gcggcttctt ctccatcttc

300 tacagcatcg gcagcaagcc tctgcaaatc tgggacaaaa aggtacggaa tggccacatc

360 aaaagaatca ctgataatga catccagtcc ctggtgctag agattgaagg gacaaatgta

420 agcaccacat atatcacatg ccttcgagac cccaagaaga cgctgggaat taaacttcct

480 ttccttgtca tgattatcaa aaacctgaag aagtatttta cttctgaagt gcaggacta

540 gatgacaaga atgtgcgtcg tcgctttcgg gcaagtaact accagagcac caccggggtc

600 aaaccttca tctgcacat gcccatgcgg ctggatgacg gctggaacca gattcagttc

660 aacttgctag acttcacacg gcgagcatac ggcaccaatt acatcgagac cctcagagt

720 cagatccatg caaattgtcg catccgacgg gtttacttct cagacagact ctactcagaa

780 gatgagctgc cggcagagtt caaactgtat ctcccagttc agaacaaggc aaagcaataa

840 ctggaattgt gactcgaggg atagaccctt ggatgtgact cttcttttta aaaggaaact

900 atgtggagga cgatgcaaaa acatatttat cttagtttgc tctgctgtag ttctgttatt

960 tatacttggg gttgcttgc atggacaccg gtgaacatgc cgtaactctg tgactgcatt

1020 gtaagtgcag tgggggtaag cagtctgtg agtggcgcat gaacgctgga gcttattccg

1080

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 1380  
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 1396

<210> 4150  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 4150  
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 20 25 30  
 His Ile Lys Arg Ile Thr Asp Asn Asp Ile Gln Ser Leu Val Leu Glu  
 35 40 45  
 Ile Glu Gly Thr Asn Val Ser Thr Thr Tyr Ile Thr Cys Pro Ala Asp  
 50 55 60  
 Pro Lys Lys Thr Leu Gly Ile Lys Leu Pro Phe Leu Val Met Ile Ile  
 65 70 75 80  
 Lys Asn Leu Lys Lys Tyr Phe Thr Phe Glu Val Gln Val Leu Asp Asp  
 85 90 95  
 Lys Asn Val Arg Arg Arg Phe Arg Ala Ser Asn Tyr Gln Ser Thr Thr  
 100 105 110  
 Arg Val Lys Pro Phe Ile Cys Thr Met Pro Met Arg Leu Asp Asp Gly  
 115 120 125  
 Trp Asn Gln Ile Gln Phe Asn Leu Leu Asp Phe Thr Arg Arg Ala Tyr  
 130 135 140  
 Gly Thr Asn Tyr Ile Glu Thr Leu Arg Val Gln Ile His Ala Asn Cys  
 145 150 155 160  
 Arg Ile Arg Arg Val Tyr Phe Ser Asp Arg Leu Tyr Ser Glu Asp Glu  
 165 170 175  
 Leu Pro Ala Glu Phe Lys Leu Tyr Leu Pro Val Gln Asn Lys Ala Lys  
 180 185 190  
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<210> 4151  
 <211> 1372  
 <212> DNA  
 <213> Homo sapiens

<400> 4151  
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 180  
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 420  
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 480  
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 720  
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 1200  
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 1260  
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 1320  
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 1372

&lt;210&gt; 4152

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4152

Met Pro Cys Thr Ala Ser Trp Pro Gln Gly Leu Leu Arg Trp Trp Glu  
 1 5 10 15  
 Gly Cys Pro Ala Val Arg Lys Ala Ser Ala Gly Ala Ala Ala Val

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      20      25      30
Arg Glu Gly Glu Thr Pro Ala Glu Asp Ala Lys Leu Asp Arg Pro Gly
      35      40      45
Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Leu Cys Ala Pro
      50      55      60
Arg Pro Pro Ser Thr Phe Met Ser Val Leu Leu Arg Gly Gln Val
65      70      75      80
Leu Pro Ser Leu Thr Ala Leu Ala Arg Pro Ala Arg Phe Pro Ser Asn
      85      90      95
Pro

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&lt;210&gt; 4153

&lt;211&gt; 395

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4153

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aaatcctccg attggcaaga aaggcttga ttctctctt tatcactg ctgtccctcc
120
tcattaattc tccacttta tcatttacat ctaggtctc ttctgaggct tcaaaactgt
180
atgacctctg acccatgctg ttgcatgga agcgagttgg tgacatctt ccattggatg
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tatcataact gttgctaggt gacggggaca ttcccgaatg ctgcgtctgt gtggaagctg
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395

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&lt;210&gt; 4154

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4154

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Met Ser Pro Ser Pro Ser Asn Ser Tyr Asp Thr Ser Pro Gln Pro Cys
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Thr Thr Asn Gln Asn Gly Arg Glu Asn Asn Glu Arg Leu Ser Thr Ser
      20      25      30
Asn Gly Lys Met Ser Pro Thr Arg Phe His Ala Asn Ser Met Gly Gln
      35      40      45
Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
      50      55      60
Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
65      70      75      80
Ile Lys Ala Phe Leu Ala Asn Arg Arg Ile Ser Gln Ala Val Asp Thr
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Ile Gly Lys Met Leu Phe Pro Ser Val His Ser Gly Leu Ile
      100      105      110

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<210> 4155  
<211> 1191  
<212> DNA  
<213> Homo sapiens

<400> 4155  
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120  
ttgatggctc caagacgtgc accattgagg acgtgtctcg caaagccacg attgaggagc  
180  
tgcgcgagcg ggtgtgggcg ctgttcgacg tgcggcccg atgccagcgc ctcttctacc  
240  
ggggcaagca gttggaaaat ggatatacct tatttgatta tgatgttga ctgaatgata  
300  
taattcagct gctagtctgc ccagaccctg atcatcttcc tggcacatct acacagattg  
360  
aggctaaacc ctgttctaata agtccaccta aagtaaagaa agctccgagg gtaggacctt  
420  
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480  
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accattttga aatggaatga actaaatgtt ggtgatgtgg taatggtaa ttataatga  
600  
gaaagtcctg gacaaagagg attctggttt gatgcagaaa ttaccacatt gaagacaatc  
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720  
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960  
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gattccagtg aagttgtaaa ggctggtgaa agactcaaga tgagtaaaaa gaaagcaaag  
1080  
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1191

<210> 4156  
<211> 233  
<212> PRT  
<213> Homo sapiens

<400> 4156  
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Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn			
35	40	45	
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser			
50	55	60	
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys			
65	70	75	80
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly			
85	90	95	
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu			
100	105	110	
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp			
115	120	125	
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly			
130	135	140	
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly			
145	150	155	160
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala			
165	170	175	
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu			
180	185	190	
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val			
195	200	205	
Lys Ala Gly Glu Arg Leu Lys Met Ser Lys Lys Lys Ala Lys Met Pro			
210	215	220	
Ser Ala Ser Thr Glu Ser Arg Arg Asp			
225	230		

&lt;210&gt; 4157

&lt;211&gt; 3460

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4157

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120  
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420  
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540

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720  
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&lt;211&gt; 463

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4158

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<212> PRT

<213> Homo sapiens

<400> 4162

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 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

&lt;400&gt; 4164

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 Cys Gly Leu Gln Asp Pro Ala Gly Ser Arg Pro Leu Ser Pro Pro Phe  
 35 40 45  
 Ser Arg Leu Arg Ser Glu Gly Ser Lys Ser Val Leu Pro Gln Trp Leu  
 50 55 60  
 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp  
 65 70 75 80  
 Gly Arg Arg Ala Leu Val Arg Ala Val Gly His Pro Gln Asp Leu Leu  
 85 90 95  
 Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser  
 100 105 110  
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala  
 115 120 125  
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp  
 130 135 140  
 Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro  
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 Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro  
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 Trp Thr Cys Arg His Met Ala Ile Glu Leu Gln  
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&lt;210&gt; 4165

&lt;211&gt; 717

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4165

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<212> PRT

<213> Homo sapiens

<400> 4166

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35 40 45  
Leu Glu Arg Glu Gly Pro Arg Ala Phe Tyr Arg Gly Tyr Leu Pro Asn  
50 55 60  
Val Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu  
65 70 75 80  
Thr Leu Lys Asn Trp Trp Leu Gln Gln Tyr Ser His Asp Ser Ala Asp  
85 90 95  
Pro Gly Ile Leu Val Leu Leu Ala Cys Gly Thr Ile Ser Ser Thr Cys  
100 105 110  
Gly Gln Ile Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met Gln  
115 120 125  
Ala Gln Gly Phe His His Val Ala Gln Ala His Leu Glu Leu Val Gly  
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<212> DNA

<213> Homo sapiens

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<400> 4168

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&lt;210&gt; 4169

&lt;211&gt; 4743

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4169

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 Thr Pro Ser Ser Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Pro  
 675 680 685  
 Ala Met Pro Ser Pro Pro Pro Pro Pro Ala Ala Ala Pro Leu  
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720

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<210> 4172

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4172

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			20					25					30		
Leu	Val	Ile	Ile	Gly	Thr	Leu	Leu	Ala	Trp	Tyr	Leu	Cys	Phe	Leu	Ile
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Val	Phe	Ile	Leu	Pro	Leu	Asp	Val	Ser	Thr	Thr	Ile	Tyr	Asn	Arg	Cys
	50					55					60				
Lys	His	Ala	Ala	Gln	Ile	Gln	Ala	Leu	Leu	Arg	Ile	Ala	Thr	Leu	Gln
65				70						75				80	
Asp	Cys	Ala	Thr	Ala	Asn	Pro	Val	Pro	Ser	Gln	His	Pro	Cys	Phe	Lys
			85					90					95		
Pro	Trp	Ser	Tyr	Ile	Pro	Asp	Gly	Ile	Met	Pro	Ile	Phe	Trp	Arg	Val
		100					105					110			
Val	Tyr	Trp	Thr	Ser	Gln	Phe	Leu	Thr	Trp	Ile	Leu	Leu	Pro	Phe	Met
	115						120				125				
Gln	Ser	Tyr	Ala	Arg	Ser	Gly	Gly	Phe	Ser	Ile	Thr	Gly	Lys	Ile	Lys
	130					135				140					
Thr	Ala	Leu	Ile	Glu	Asn	Ala	Ile	Tyr	Tyr	Gly	Thr	Tyr	Leu	Leu	Ile
145				150					155					160	
Phe	Gly	Ala	Phe	Leu	Ile	Tyr	Val	Ala	Val	Asn	Pro	His	Leu	His	Leu
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Glu	Trp	Asn	Gln	Leu	Gln	Thr	Ile								
			180												

<210> 4173

<211> 404

<212> DNA

<213> Homo sapiens

<400> 4173

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<210> 4174  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 4174  
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 Gly Thr Pro Val Ser Lys Cys Ala Arg Ala Leu Gly Ser Ala Lys Gly  
 35 40 45  
 Pro Leu Leu Cys Cys Cys Val Gln Ala Trp His Leu Gln Asp Gly Asp  
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 <213> Homo sapiens

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2340

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&lt;210&gt; 4176

&lt;211&gt; 586

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4176

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			20					25					30		
Ala	Gly	Leu	Arg	Ala	Ala	Met	Gly	Pro	Gly	Ile	Ser	Arg	Met	Asn	Asp
		35					40					45			
Leu	Thr	Ile	Ile	Gln	Thr	Thr	Gln	Gly	Phe	Cys	Arg	Tyr	Leu	Glu	Lys
	50				55					60					
Gln	Phe	Ser	Asp	Leu	Lys	Gln	Lys	Gly	Ile	Val	Ile	Ser	Phe	Asp	Ala
65				70					75					80	
Arg	Ala	His	Pro	Ser	Ser	Gly	Gly	Ser	Ser	Arg	Arg	Phe	Ala	Arg	Leu
			85					90					95		
Ala	Ala	Thr	Thr	Phe	Ile	Ser	Gln	Gly	Ile	Pro	Val	Tyr	Leu	Phe	Ser
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Asp	Ile	Thr	Pro	Thr	Pro	Phe	Val	Pro	Phe	Thr	Val	Ser	His	Leu	Lys
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Leu	Cys	Ala	Gly	Ile	Met	Ile	Thr	Ala	Ser	His	Asn	Pro	Lys	Gln	Asp
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His	Asp	Lys	Gly	Ile	Ser	Gln	Ala	Ile	Glu	Glu	Asn	Leu	Glu	Pro	Trp
		165						170						175	
Pro	Gln	Ala	Trp	Asp	Asp	Ser	Leu	Ile	Asp	Ser	Ser	Pro	Leu	Leu	His
		180					185						190		
Asn	Pro	Ser	Ala	Ser	Ile	Asn	Asn	Asp	Tyr	Phe	Glu	Asp	Leu	Lys	Lys
	195					200					205				
Tyr	Cys	Phe	His	Arg	Ser	Val	Asn	Arg	Glu	Thr	Lys	Val	Lys	Phe	Val
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His	Thr	Ser	Val	His	Gly	Val	Gly	His	Ser	Phe	Val	Gln	Ser	Ala	Phe
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Ala Glu Lys Gln Asp Ser Gly Glu Trp Arg Val Phe Ser Gly Asn Glu
305                310                315                320
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                340                345                350
Val Ser Ser Lys Ile Leu Arg Ala Ile Ala Leu Lys Glu Gly Phe His
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Phe Glu Glu Thr Leu Thr Gly Phe Lys Trp Met Gly Asn Arg Ala Lys
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Gln Leu Ile Asp Gln Gly Lys Thr Val Leu Phe Ala Phe Glu Glu Ala
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Ile Gly Tyr Met Cys Cys Pro Phe Val Leu Asp Lys Asp Gly Val Ser
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                435                440                445
His Ile Thr Lys Ala Ser Tyr Phe Ile Cys His Asp Gln Glu Thr Ile
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Lys Lys Leu Phe Glu Asn Leu Arg Asn Tyr Asp Gly Lys Asn Asn Tyr
465                470                475                480
Pro Lys Ala Cys Gly Lys Phe Glu Ile Ser Ala Ile Arg Asp Leu Thr
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Thr Gly Tyr Asp Asp Ser Gln Pro Asp Lys Lys Ala Val Leu Pro Thr
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Ser Lys Ser Ser Gln Met Ile Thr Phe Thr Phe Ala Asn Gly Gly Val
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545                550                555                560
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&lt;210&gt; 4177

&lt;211&gt; 4763

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4177

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&lt;210&gt; 4178

&lt;211&gt; 398

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4178

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 Ser Arg Thr Asn Glu Asn Asp Pro Ala Lys His Gly Asp Gln His Glu  
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 Gly Gln His Tyr Asn Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro  
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 His Gly Leu Pro Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu  
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 Ala Cys Leu Met Val Arg Lys Pro Ala Leu Glu Leu Leu His Tyr Leu  
 100 105 110  
 Lys Asn Thr Ser Phe Ala Tyr Pro Ala Ile Arg Tyr Leu Leu Tyr Gly  
 115 120 125  
 Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe  
 130 135 140  
 Cys Ala Lys Gln Asp Trp Leu Ile Leu His Ile Pro Asp Ala His Leu  
 145 150 155 160

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Trp Val Lys Asn Cys Arg Asp Leu Leu Gln Ser Ser Tyr Asn Lys Gln  
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 Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys  
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 Thr Thr Asn Glu Arg Phe Leu Asn Gln Ile Lys Val Gln Glu Lys Tyr  
 195 200 205  
 Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu  
 210 215 220  
 Val Val Glu Gln Gly Ile Thr Arg Val Arg Asn Ala Thr Asp Ala Val  
 225 230 235 240  
 Gly Ile Val Leu Lys Glu Leu Lys Arg Gln Ser Ser Leu Gly Met Phe  
 245 250 255  
 His Leu Leu Val Ala Val Asp Gly Ile Asn Ala Leu Trp Gly Arg Thr  
 260 265 270  
 Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala  
 275 280 285  
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 290 295 300  
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 305 310 315 320  
 Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala  
 325 330 335  
 Leu Asp Pro Phe Ile Pro Ile Leu Val Ser Asn Tyr Asn Pro Lys Glu  
 340 345 350  
 Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His  
 355 360 365  
 Glu Lys Ala Pro Thr Glu Glu Gly Lys Lys Glu Leu Leu Phe Leu Ser  
 370 375 380  
 Asn Ala Asn Pro Ser Leu Leu Glu Arg His Cys Ala Tyr Leu  
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&lt;210&gt; 4179

&lt;211&gt; 2208

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4179

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 <212> PRT  
 <213> Homo sapiens

<400> 4180  
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 35 40 45  
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 50 55 60  
 Val Ile Thr Gly Arg His Trp Leu Ala Arg Glu Tyr Val Trp Phe Leu  
 65 70 75 80  
 Ile Pro Tyr Met Ile Tyr Asp Ser Tyr Ala Met Tyr Leu Cys Glu Trp  
 85 90 95  
 Cys Arg Thr Arg Asp Gln Asn Arg Ala Pro Ser Leu Thr Leu Arg Asn  
 100 105 110  
 Phe Leu Ser Arg Asn Arg Leu Met Ile Thr His His Ala Val Ile Leu  
 115 120 125  
 Phe Val Leu Val Pro Val Ala Gln Arg Leu Arg Gly Asp Leu Gly Asp  
 130 135 140  
 Phe Phe Val Gly Cys Ile Phe Thr Ala Glu Leu Ser Thr Pro Phe Val  
 145 150 155 160  
 Ser Leu Gly Arg Val Leu Ile Gln Leu Lys Gln Gln His Thr Leu Leu  
 165 170 175  
 Tyr Lys Val Asn Gly Ile Leu Thr Leu Ala Thr Phe Leu Ser Cys Arg

	180		185		190										
Ile	Leu	Leu	Phe	Pro	Phe	Met	Tyr	Trp	Ser	Tyr	Gly	Arg	Gln	Gln	Gly
	195						200				205				
Leu	Ser	Leu	Leu	Gln	Val	Pro	Phe	Ser	Ile	Pro	Phe	Tyr	Cys	Asn	Val
	210					215					220				
Ala	Asn	Ala	Phe	Leu	Val	Ala	Pro	Gln	Ile	Tyr	Trp	Phe	Cys	Leu	Leu
225					230					235				240	
Cys	Arg	Lys	Ala	Val	Arg	Leu	Phe	Asp	Thr	Pro	Gln	Ala	Lys	Lys	Asp
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Gly

&lt;210&gt; 4181

&lt;211&gt; 735

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4181

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735

&lt;210&gt; 4182

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4182

His Pro Ala Gly Ile Glu Phe Ser Leu Cys Leu Leu Phe Ala Lys Leu

1 5 10 15

Val Ser Tyr Thr Phe Leu Tyr Trp Leu Pro Leu Tyr Ile Ala Asn Val



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Ala His Phe Ser Ala Lys Glu	Ala Gly Asp Leu Ser Thr	Leu Phe Asp
35	40	45
Val Gly Gly Ile Ile Gly Gly	Ile Val Ala Gly Leu Val	Ser Asp Tyr
50	55	60
Thr Asn Gly Arg Ala Thr Thr	Cys Cys Val Met Leu Ile	Leu Ala Ala
65	70	75
Pro Met Met Phe Leu Tyr Asn	Tyr Ile Gly Gln Asp Gly	Ile Ala Ser
85	90	95
Ser Ile Val Met Leu Ile Ile	Cys Gly Gly Leu Val Asn	Gly Pro Tyr
100	105	110
Ala Xaa Ile Thr Thr Ala Val	Ser Ala Asp Leu Gly Thr	His Lys Ser
115	120	125
Leu Lys Gly Asn Ala Lys Ala	Leu Ser Thr Val Thr Ala	Ile Ile Asp
130	135	140
Gly Thr Gly Ser Ile Gly Ala	Ala Leu Gly Pro Leu Leu	Ala Gly Leu
145	150	155
Ile Ser Pro Thr Gly Trp Asn	Asn Val Phe Tyr Met Leu	Ile Ser Ala
165	170	175
Asp Val Leu Ala Cys Leu Leu	Leu Cys Arg Leu Val Tyr	Lys Glu Ile
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 <211> 1129  
 <212> DNA  
 <213> Homo sapiens

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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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		20						25					30		
Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
		35				40						45			
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
	50					55					60				
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala
	65				70					75				80	
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
			85					90					95		
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
			100					105				110			
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
	115					120						125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
	130				135						140				
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
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Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
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Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
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Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
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Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
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Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
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Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
			245					250						255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
			260					265					270		
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu

275	280	285
Ser Gln Gln Glu Gln Thr	Ala Phe Leu Pro Ala	Asn Gln Val Pro Val
290	295	300
Leu Gln Gln Asn Thr Ser	Val Ala Thr Lys Gln	Pro Gln Thr Ser Val
305	310	315
Val Gln Asn Gln Gln Ile	Ser Gln Gln Gly Pro	Ile Tyr Asp Glu
325	330	335
Val Glu Leu Asp Ala Leu	Ala Glu Ile Glu Arg	Ile Glu Arg Glu Ser
340	345	350
Ala Ile Glu Arg Glu Arg	Phe Ser Lys Glu Val	Gln Asp Lys Asp Lys
355	360	365
Pro Leu Lys Lys Lys Lys		
370		

&lt;210&gt; 4185

&lt;211&gt; 1481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4185

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180

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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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 Thr Ile Asp Trp Asn Glu Trp Arg Asp Tyr His Leu Leu His Pro Val  
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 Glu Asn Ile Pro Glu Ile Ile Leu Tyr Trp Lys His Ser Thr Ile Phe  
 65 70 75 80  
 Asp Val Gly Glu Asn Leu Thr Val Pro Asp Glu Phe Thr Val Glu Glu  
 85 90 95  
 Arg Gln Thr Gly Met Trp Trp Arg His Leu Val Ala Gly Gly Gly Ala  
 100 105 110  
 Gly Ala Val Ser Arg Thr Cys Thr Ala Pro Leu Asp Arg Leu Lys Val  
 115 120 125  
 Leu Met Gln Val His Ala Ser Arg Ser Asn Asn Met Gly Ile Val Gly  
 130 135 140  
 Gly Phe Thr Gln Met Ile Arg Glu Gly Gly Ala Arg Ser Leu Trp Arg  
 145 150 155 160  
 Gly Asn Gly Ile Asn Val Leu Lys Ile Ala Pro Glu Ser Ala Ile Lys  
 165 170 175  
 Phe Met Ala Tyr Glu Gln Ile Lys Arg Leu Val Gly Ser Asp Gln Glu  
 180 185 190  
 Thr Leu Arg Ile His Glu Arg Leu Val Ala Gly Ser Leu Ala Gly Ala  
 195 200 205  
 Ile Ala Gln Ser Ser Ile Tyr Pro Met Glu Val Leu Lys Thr Arg Met  
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<212> DNA
<213> Homo sapiens
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720
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840

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<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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			20					25					30		
Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
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Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
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Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
65				70					75					80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
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Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
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Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
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Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
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Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
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Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
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Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
		180					185						190		
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
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Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu	Cys	Gly	Ile	Pro	Lys	His	Phe
		210				215					220				
Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr	Ala	Leu	Met	Met	Glu	Gly	Leu	Leu
225				230					235					240	
Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
			245						250					255	
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<210> 4189

<211> 1570

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4189

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<210> 4190

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4190

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Leu	Cys	Gly	Val	Met	Arg	Ile	Gly	Leu	Val	Ala	Lys	Gly	Leu	Leu	Ile
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Lys	Asp	Asp	Met	Asp	Leu	Glu	Leu	Val	Leu	Met	Cys	Lys	Asp	Lys	Pro
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Leu Gln Tyr Lys Leu Leu Ser Gln Ser Gly Pro Val His Ala Pro Val		
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Phe Thr Met Ser Val Asp Val Asp Gly Thr Thr Tyr Glu Ala Ser Gly		
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Pro Ser Lys Lys Thr Ala Lys Leu His Val Ala Val Lys Val Leu Gln		
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Ala Met Gly Tyr Pro Thr Gly Phe Asp Ala Asp Ile Glu Cys Met Ser		
450	455	460
Ser Asp Glu Lys Arg Arg Gly Leu Lys Tyr Glu Leu Ile Ser Glu Thr		
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Gln Lys Phe Arg Gly Ala Gly Pro Asn Lys Lys Val Ala Lys Ala Ser		
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&lt;210&gt; 4191

&lt;211&gt; 1661

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4191

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&lt;210&gt; 4192

&lt;211&gt; 517

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4192

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4193

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5580  
agtctgcctc tatgatgatg ttaaattatt gctgtttagc tgtgaacaag ggatgtacca  
5640  
ctggaggaat agagtatcct tttgtacaca ttttgaaatg cttcttctgt agtगतगगग  
5700  
caaataaatg caacgaatac tctgtctgcc ctatcccggtg aagtcacac tggcgtaaga  
5760  
gaaggccag cagagcagga atctgcctag actttctccc aatgagatcc caatatgaga  
5820  
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5880  
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5940  
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6000  
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6060  
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6120  
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6180  
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6240  
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6300  
aaaatttctg atcccatttc tgatggatgt gtcacacctt ttctgtcaaa ataaaatgtc  
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 6439

<210> 4194  
 <211> 519  
 <212> PRT  
 <213> Homo sapiens

<400> 4194  
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 20 25 30  
 Ile Pro Glu Asp Leu Ser Thr Thr Ser Gly Gly Gln Gln Ser Ser Lys  
 35 40 45  
 Ser Asp Arg Val Val Ala Ser Asn Val Lys Val Glu Thr Gln Ser Asp  
 50 55 60  
 Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu  
 65 70 75 80  
 Asp Leu Arg Met Leu Asp Ala Ser Gly Glu Lys Met Asn Gly Ser His  
 85 90 95  
 Arg Asp Gln Gly Ser Ser Ala Leu Ser Gly Val Gly Gly Ile Arg Leu  
 100 105 110  
 Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly  
 115 120 125  
 Pro Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg Pro  
 130 135 140  
 Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu  
 145 150 155 160  
 Leu Arg His Ile Lys Leu His Ser Gly Glu Lys Pro Phe Lys Cys His  
 165 170 175  
 Leu Cys Asn Tyr Ala Cys Arg Arg Arg Asp Ala Leu Thr Gly His Leu  
 180 185 190  
 Arg Thr His Ser Val Gly Lys Pro His Lys Cys Gly Tyr Cys Gly Arg  
 195 200 205  
 Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys His  
 210 215 220  
 Asn Tyr Leu Glu Ser Met Gly Leu Pro Gly Thr Leu Tyr Pro Val Ile  
 225 230 235 240  
 Lys Glu Glu Thr Asn His Ser Glu Met Ala Glu Asp Leu Cys Lys Ile  
 245 250 255  
 Gly Ser Glu Arg Ser Leu Val Leu Asp Arg Leu Ala Ser Asn Val Ala  
 260 265 270  
 Lys Arg Lys Ser Ser Met Pro Gln Lys Phe Leu Gly Asp Lys Gly Leu  
 275 280 285  
 Ser Asp Thr Pro Tyr Asp Ser Ser Ala Ser Tyr Glu Lys Glu Asn Glu  
 290 295 300  
 Met Met Lys Ser His Val Met Asp Gln Ala Ile Asn Asn Ala Ile Asn  
 305 310 315 320  
 Tyr Leu Gly Ala Glu Ser Leu Arg Pro Leu Val Gln Thr Pro Pro Gly  
 325 330 335  
 Gly Ser Glu Val Val Pro Val Ile Ser Pro Met Tyr Gln Leu His Lys



	340		345		350										
Pro	Leu	Ala	Glu	Gly	Thr	Pro	Arg	Ser	Asn	His	Ser	Ala	Gln	Asp	Ser
	355					360						365			
Ala	Val	Glu	Asn	Leu	Leu	Leu	Leu	Ser	Lys	Ala	Lys	Leu	Val	Pro	Ser
	370					375						380			
Glu	Arg	Glu	Ala	Ser	Pro	Ser	Asn	Ser	Cys	Gln	Asp	Ser	Thr	Asp	Thr
385					390					395				400	
Glu	Ser	Asn	Asn	Glu	Glu	Gln	Arg	Ser	Gly	Leu	Ile	Tyr	Leu	Thr	Asn
		405							410				415		
His	Ile	Ala	Pro	His	Ala	Arg	Asn	Gly	Leu	Ser	Leu	Lys	Glu	Glu	His
	420							425					430		
Arg	Ala	Tyr	Asp	Leu	Leu	Arg	Ala	Ala	Ser	Glu	Asn	Ser	Gln	Asp	Ala
	435						440					445			
Leu	Arg	Val	Val	Ser	Thr	Ser	Gly	Glu	Gln	Met	Lys	Val	Tyr	Lys	Cys
	450					455					460				
Glu	His	Cys	Arg	Val	Leu	Phe	Leu	Asp	His	Val	Met	Tyr	Thr	Ile	His
465					470					475				480	
Met	Gly	Cys	His	Gly	Phe	Arg	Asp	Pro	Phe	Glu	Cys	Asn	Met	Cys	Gly
		485							490				495		
Tyr	His	Ser	Gln	Asp	Arg	Tyr	Glu	Phe	Ser	Ser	His	Ile	Thr	Arg	Gly
	500							505					510		
Glu	His	Arg	Phe	His	Met	Ser									
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<210> 4195  
 <211> 1200  
 <212> DNA  
 <213> Homo sapiens

<400> 4195  
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 agctggctct tactccctgc catggggctc tgcacgtttg ccacctggc actgatcctg  
 120  
 ctggtgctgc tggaggtctt ggcccaggcg gacacacaga agatggtgga agcccagcgt  
 180  
 ggggtcggcc ctagagcctg ctactccatc tggctcctcc tggcgcctac accccctctc  
 240  
 agccaactgtc ttcaagtctc acagaaacag catcaagtgt gcggagacag gcggctgaaa  
 300  
 gccagcagca cgaactgccc gtcagagaag tgcacagcct gggccagata ctcccacagg  
 360  
 atggactcac tgcagaagca ggacctccg aggcccaaga tccatggggc agtccaggca  
 420  
 tctccctacc agccgcccac attggcttcg ctgcagcgt tgcgtgtgggt ccgtcaggct  
 480  
 gccacactga accatatcga tgaggtctgg cccagcctct tcctgggaga tgcgtacgca  
 540  
 gcccgggaca agagcaagct gatccagctg ggaatcacc acgttgtgaa tgccgctgca  
 600  
 ggcaagtcc aggtggacac aggtgccaaa ttctaccgtg gaatgtccct ggagtactat  
 660  
 ggcacgagg cggacgacaa ccccttcttc gacctcagtg tctactttct gcctgttgct  
 720

cgatacatcc gagctgccct cagtgttccc caaggccgcg tgctggtaca ctgtgccatg  
 780  
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 840  
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 900  
 ctccggcagc tccaggttct ggacaaccga ctggggcggg agacggggcg gttctgatct  
 960  
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 1020  
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 1080  
 gcagggatag ctgggtgggtg acctcttagc ggggtggattt ccctgacca attcagagat  
 1140  
 tctttatgca aaagtgagtt cagtccatct ctataataaa atattcatcg tcataaaaaa  
 1200

&lt;210&gt; 4196

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4196

Xaa Gly Ser Leu Leu Ala Ala Val Trp Thr Asn Leu Ala Gln Pro Phe  
 1 5 10 15  
 His Arg Arg Cys Ser Trp Ser Leu Leu Pro Ala Met Gly Leu Cys Thr  
 20 25 30  
 Phe Ala Thr Leu Ala Leu Ile Leu Leu Val Leu Leu Glu Ala Leu Ala  
 35 40 45  
 Gln Ala Asp Thr Gln Lys Met Val Glu Ala Gln Arg Gly Val Gly Pro  
 50 55 60  
 Arg Ala Cys Tyr Ser Ile Trp Leu Leu Leu Ala Pro Thr Pro Pro Leu  
 65 70 75 80  
 Ser His Cys Leu Gln Ser Pro Gln Lys Gln His Gln Val Cys Gly Asp  
 85 90 95  
 Arg Arg Leu Lys Ala Ser Ser Thr Asn Cys Pro Ser Glu Lys Cys Thr  
 100 105 110  
 Ala Trp Ala Arg Tyr Ser His Arg Met Asp Ser Leu Gln Lys Gln Asp  
 115 120 125  
 Leu Arg Arg Pro Lys Ile His Gly Ala Val Gln Ala Ser Pro Tyr Gln  
 130 135 140  
 Pro Pro Thr Leu Ala Ser Leu Gln Arg Leu Leu Trp Val Arg Gln Ala  
 145 150 155 160  
 Ala Thr Leu Asn His Ile Asp Glu Val Trp Pro Ser Leu Phe Leu Gly  
 165 170 175  
 Asp Ala Tyr Ala Ala Arg Asp Lys Ser Lys Leu Ile Gln Leu Gly Ile  
 180 185 190  
 Thr His Val Val Asn Ala Ala Ala Gly Lys Phe Gln Val Asp Thr Gly  
 195 200 205  
 Ala Lys Phe Tyr Arg Gly Met Ser Leu Glu Tyr Tyr Gly Ile Glu Ala  
 210 215 220  
 Asp Asp Asn Pro Phe Phe Asp Leu Ser Val Tyr Phe Leu Pro Val Ala  
 225 230 235 240  
 Arg Tyr Ile Arg Ala Ala Leu Ser Val Pro Gln Gly Arg Val Leu Val

				245				250				255			
His	Cys	Ala	Met	Gly	Val	Ser	Arg	Ser	Ala	Thr	Leu	Val	Leu	Ala	Phe
			260					265					270		
Leu	Met	Ile	Tyr	Glu	Asn	Met	Thr	Leu	Val	Glu	Ala	Ile	Gln	Thr	Val
		275					280					285			
Gln	Ala	His	Arg	Asn	Ile	Cys	Pro	Asn	Ser	Gly	Phe	Leu	Arg	Gln	Leu
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Gln	Val	Leu	Asp	Asn	Arg	Leu	Gly	Arg	Glu	Thr	Gly	Arg	Phe		
305					310					315					

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<210> 4197
<211> 597
<212> DNA
<213> Homo sapiens
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120
gtggtcctct-gtggaggtgg-aatcacgggc-acttctgtgg_cccatcacca_atccaaaatg
180
gggtggaagg atattgtcct tttggagcag ggcaggctgg ctgctggctc taccaggttc
240
tgtgctggca tcctgagcac tgccaggcac ttgaccattg agcagaagat ggcagactac
300
tcaaacaaac tctactatca gttagagcaa gaaacaggga tccaaacagg ttacacaagg
360
acaggctcaa tctttctggc ccaaactcag gaccgactga tctccctgaa gcgcataaac
420
gcagggtcta agtacgtaag agtctagaag cgtgtcctga ctttaccaca ctggcctctg
480
ccaaagagcc tgtgaatgtc attgtccctt gtgttctgtg gcagtgttat aggtatccct
540
tctgagatca tctcccccaa gaaagtggcc gagcttcacc atctcctcaa cgtgcac
597

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<210> 4198
<211> 148
<212> PRT
<213> Homo sapiens
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<400> 4198
Arg Leu Leu Ser Ile Val Gly Arg Gln Arg Ala Ser Pro Gly Trp Gln
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Asn Trp Ser Ser Ala Arg Asn Ser Ala Ser Ala Ala Glu Ala Arg Ser
                               20                               25                               30
Met Ala Leu Pro Thr Gln Ala Gln Val Val Ile Cys Gly Gly Gly Ile
                               35                               40                               45
Thr Gly Thr Ser Val Ala His His Gln Ser Lys Met Gly Trp Lys Asp
                               50                               55                               60
Ile Val Leu Leu Glu Gln Gly Arg Leu Ala Ala Gly Ser Thr Arg Phe
65                               70                               75                               80
Cys Ala Gly Ile Leu Ser Thr Ala Arg His Leu Thr Ile Glu Gln Lys

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<400> 4199
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120
gacgcccgcg ctctgctcgc ctcccgctcg ttctcgctcc cggccgccat catgctggcg
180
ctcatctccc gcctgctgga ctgggtccgt tgcctcttct ggaaggaaga gatggagctg
240
acgctcgtgg ggctgcagta ctcgggcaag accaccttcg tcaatgtcat cgcgtcaggt
300
caattcagtg aagatatgat acccacagtg ggcttcaaca tgaggaaggt aactaaaggt
360
aacgtcacia taaagatctg ggacatagga ggacaacccc gatttcgaag catgtgggag
420
cgggtattgca gaggagtcaa tgctattggt tacatgatag atgctgcaga tctgaaaaag
480
atagaagctt cccgaaatga gctccacaac ctactggaca aaccacagtt acaaggaatt
540
ccagtgtctg tgcttggaaa caagcgagac cttccgggag cattggatga gaaggagctg
600
attgagaaaa tgaatctgtc tgctattcag gatagagaaa ttgtctgcta ttcaatttct
660
tgcaagaaa aggataatat agatatcaca cttcagtggc ttattcagca ttcaaaatct
720
agaagaagct gaagcatctc ctgaagtctt ccagtccttc ttggctataa tcttagaatt
780
attgtccgtt cctctgaagt aattcccaga atacggtcct tcctaaaccc cagaaattgc
840
ctttttcaga gtttatttct catgtgcact gctgaagatg aatatcccta atccttcata
900
aagaatcagc tagagtgtgc atgataaagt cagcacacac aaaaaggctt cttacacata
960
cctgtcttaa accatgtgta gagctttaaa aacagaaaaa aaaccacata tacttatgac
1020
catcttaaatt caagaaaatt gcataatttc attctggtct ttctgggcca gatttttata
1080
ttggttttca gtaaatgtct atctataata ttctattata gagtccagta gcttaatact
1140

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gacactgact tgatacagca tgaagtttct agtgccacac acagtattta gaaaaccttt  
 1200  
 aggcgtgaat gactcatgtg ggatatatgt aaacataatg tttattttat ctcacaaatg  
 1260  
 catgtgaaat gtataattac atcttaggaa tccaaaatgg tctgcagaga gtgagcggag  
 1320  
 gcaccagatc aatgttggtt ctttgactg gtgagattct gectgatgaa tattaagat  
 1380  
 atcctgcttt ctgagaactc taccaccaga tggcagttgg gatatgggag gaactaaagc  
 1440  
 atcctgcttt gtatctgtcc agatcattat ttctgtctct tgttttttct tcctgggtca  
 1500  
 ggatactttt ttaaggggtt gagaattgaa gattttccaa aagcgttcat gaatttagag  
 1560  
 cattccaccc aatataataa aacctgttaa gaatgtcagt ctttgttcaa acatctgttt  
 1620  
 gttctatctc cagtcattaa atcagtgtg ctgcatgaca ctcttaactc ctgacttttt  
 1680  
 atatccagtc ataaagttga ctttcagcac aaaagatact tataaacaaa taaaaaattt  
 1740  
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 1769

&lt;210&gt; 4200

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4200

Met	Leu	Ala	Leu	Ile	Ser	Arg	Leu	Leu	Asp	Trp	Phe	Arg	Ser	Leu	Phe
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Trp	Lys	Glu	Glu	Met	Glu	Leu	Thr	Leu	Val	Gly	Leu	Gln	Tyr	Ser	Gly
			20					25					30		
Lys	Thr	Thr	Phe	Val	Asn	Val	Ile	Ala	Ser	Gly	Gln	Phe	Ser	Glu	Asp
			35				40					45			
Met	Ile	Pro	Thr	Val	Gly	Phe	Asn	Met	Arg	Lys	Val	Thr	Lys	Gly	Asn
	50					55					60				
Val	Thr	Ile	Lys	Ile	Trp	Asp	Ile	Gly	Gly	Gln	Pro	Arg	Phe	Arg	Ser
65					70					75				80	
Met	Trp	Glu	Arg	Tyr	Cys	Arg	Gly	Val	Asn	Ala	Ile	Val	Tyr	Met	Ile
			85					90					95		
Asp	Ala	Ala	Asp	Arg	Glu	Lys	Ile	Glu	Ala	Ser	Arg	Asn	Glu	Leu	His
			100					105					110		
Asn	Leu	Leu	Asp	Lys	Pro	Gln	Leu	Gln	Gly	Ile	Pro	Val	Leu	Val	Leu
			115				120					125			
Gly	Asn	Lys	Arg	Asp	Leu	Pro	Gly	Ala	Leu	Asp	Glu	Lys	Glu	Leu	Ile
			130				135				140				
Glu	Lys	Met	Asn	Leu	Ser	Ala	Ile	Gln	Asp	Arg	Glu	Ile	Cys	Cys	Tyr
145					150					155					160
Ser	Ile	Ser	Cys	Lys	Glu	Lys	Asp	Asn	Ile	Asp	Ile	Thr	Leu	Gln	Trp
			165					170						175	
Leu	Ile	Gln	His	Ser	Lys	Ser	Arg	Arg	Ser						
			180					185							

<210> 4201  
 <211> 917  
 <212> DNA  
 <213> Homo sapiens

<400> 4201  
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 60  
 ctctcact accgcaacat ctggaaaaat ctgcttatcc tgggcttcac caacttcatt  
 120  
 gccatgccca ttgccactg ctaccagcct gtgggaggag gagggagccc atcggacttc  
 180  
 tacctgtgct ctctgctggc cagcggancc gcagccctgg cctgtgtctt cctgggggtc  
 240  
 accgtggacc gatttggccg cgggggcac cttcttctct ccatgacctt taccggcatt  
 300  
 gcttccctgg tcttctggg cctgtgggat tatctgaacg aggtgacct caccactttc  
 360  
 tctgtccttg ggctcttctc ctcccaagct gccgccatcc tcagcaccct ccttgctgct  
 420  
 gaggctcatcc ccaccactgt ccgggggcgt ggccctgggc tgatcatggc tctaggggcg  
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 540  
 cacgtggtgc tggcggcctg cgccctcctc tgcattctca gcattatgct gctgcccggag  
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 660  
 ctgtctgggc agccaacccc taccgctgtg gaccacgtcc cgtgtcttgc ccccccaac  
 720  
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 780  
 agagtcaggg gacagggaga gagctccaca ctgtaaccac tgggtctggg ctccatcctg  
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 900  
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 917

<210> 4202  
 <211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 4202  
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 Ser Phe Ala Ser Leu Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu  
 20 25 30  
 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr  
 35 40 45  
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser  
 50 55 60  
 Leu Leu Ala Ser Gly Xaa Ala Ala Leu Ala Cys Val Phe Leu Gly Val

65		70		75		80									
Thr	Val	Asp	Arg	Phe	Gly	Arg	Arg	Gly	Ile	Leu	Leu	Leu	Ser	Met	Thr
				85				90						95	
Leu	Thr	Gly	Ile	Ala	Ser	Leu	Val	Leu	Leu	Gly	Leu	Trp	Asp	Tyr	Leu
		100						105					110		
Asn	Glu	Ala	Ala	Ile	Thr	Thr	Phe	Ser	Val	Leu	Gly	Leu	Phe	Ser	Ser
		115					120					125			
Gln	Ala	Ala	Ala	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ala	Glu	Val	Ile	Pro
	130					135					140				
Thr	Thr	Val	Arg	Gly	Arg	Gly	Leu	Gly	Leu	Ile	Met	Ala	Leu	Gly	Ala
145					150					155					160
Leu	Gly	Gly	Leu	Ser	Gly	Pro	Ala	Gln	Arg	Leu	His	Met	Gly	His	Gly
			165					170						175	
Ala	Phe	Leu	Gln	His	Val	Val	Leu	Ala	Ala	Cys	Ala	Leu	Leu	Cys	Ile
		180						185				190			
Leu	Ser	Ile	Met	Leu	Leu	Pro	Glu	Thr	Lys	Arg	Lys	Leu	Leu	Pro	Glu
	195					200						205			
Val	Leu	Arg	Asp	Gly	Glu	Leu	Cys	Arg	Arg	Pro	Ser	Leu	Leu	Arg	Gln
	210					215					220				
Pro	Thr	Pro	Thr	Arg	Cys	Asp	His	Val	Pro	Leu	Leu	Ala	Thr	Pro	Asn
225					230					235					240
Pro Ala Leu															

<210> 4203  
 <211> 1368  
 <212> DNA  
 <213> Homo sapiens

<400> 4203  
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 gctaggctcc atgccagtt cctgtgagga gaaaacacgt ttctatgtgc ccggcaggta  
 120  
 ggaggcactc acaaaatggt actttgtctt tacagaattt tctgaaggag agataaaaac  
 180  
 tgagttaaat aaagatgatc agaatggatg agaaataact ttagacatta tttcattgaa  
 240  
 ccttcccaac tgaaattatt ttatgatgtt ataacatgga tagtaactca agtagcaata  
 300  
 agttacacag ttgtgccatt tgtgcttctt tctataaaac catcactcac gttttacagc  
 360  
 tcctggtatt attgctgca cattcttggc atcttagtat tattgttgtt gccagtgaag  
 420  
 aaaaactcaa agaagaaaga atacacatga aaacattcag ctctcacaat ccaaaaagtt  
 480  
 tgatgaagga gaaaattctt tgggacagaa cagtttttct acaacaaaca atgtttgcaa  
 540  
 tcagaatcaa gaaatagcct cgagacattc atcactaaag cagtgatcgg gaaggctctg  
 600  
 agggctgttt ttttttttgg atgttaacag aaaccaatct tagcaccttt tcaaggggtt  
 660  
 tgagtttgtt ggaaaagcag ttaactgggg ggaaatggac agttatagat aaggaatttc  
 720

ctgtacacca gattggaaat ggagtgaac aagccctccc atgccatgtc cccgtgggcc  
 780  
 acgccttatg taagaatatt tccatatttc agtgggcact cccaacctca gcacttgctc  
 840  
 gtagggcac acgcgtgccc tgttgctgaa tgtatgttgc gtatcccaag gcactgaaga  
 900  
 ggtggaaaaa taatcgtgtc aatctggatg atagagagaa attaactttt ccaaataaat  
 960  
 gtcttgctt aaacctcta tttcctaaaa tattgttcct aaatggattt ttcaagtgtg  
 1020  
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 1080  
 atttgaaaca ggatatttaa gagtgtggat atttttaaaa tgcaataaac atctcagtat  
 1140  
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 1200  
 aatggacgcc aaattatagg tagctgattt tgctggagag tttaattacc ttgtgcagtc  
 1260  
 aaagagcgt tccagaagga atctcttaaa acataatgag aggtttggta atgtgatatt  
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 1368

<210> 4204  
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&lt;210&gt; 4206

&lt;211&gt; 829

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4206

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Asp Thr Val Arg Lys Ser Tyr Tyr Ser Lys Asp Pro Ser Arg Ala Glu			
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Gln Asp Glu Trp Asp Arg Pro Leu Asp Tyr Thr Lys Pro Ser Arg Leu			

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Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser Leu Ser Gly Cys		
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Lys Leu Ser Gly Asp Glu Val Leu Ser Pro Lys Phe Lys Thr Ser Asp		
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705	710	715
Asp Leu Asn Glu Ser Asn Ser Glu Met Glu Ala Ala Met Val Gln Leu		
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Gln Ser Gln Ile Ser Ser Met Glu Lys Asn Leu Lys Asn Ile Glu Glu		
740	745	750
Glu Asn Lys Leu Ile Glu Glu Gln Asn Glu Ala Leu Phe Leu Glu Leu		
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Pro His Met Glu Pro Ile Cys Glu Gln Asn Phe Asp Ala Tyr Val Ser		
785	790	795
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&lt;210&gt; 4207

&lt;211&gt; 1016

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<211> 193

<212> PRT

<213> Homo sapiens

<400> 4208

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Thr	Val	Ser	Gln	Lys	Lys	Ser	Ser	Lys	Leu	Cys	Thr	Cys	Thr	Glu	Pro
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Ile	Arg	Lys	Val	Pro	Val	Ser	Lys	Thr	Pro	Lys	Lys	Thr	His	Ser	Asp
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agcaagatcc tgttcgtgag gagtgcgcc tcccgggagg agctggcaga gctggcacag  
2460  
caggtcaacc ccgaggagat ccagctgggc gaggacgagg acgaggacga gatggacctg  
2520  
gagcccaacg aggttcggct ggagcagcag agcgtgccag ccgcagtggt tgggagcctg  
2580

aaggaagact gaccgcgtccc tcccccatcc cccctcccca cccctcccc aatacagcta  
 2640  
 cgtttgtaca tcaaaaaaaaa a  
 2661

<210> 4210

<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

Xaa Ser Cys Thr Trp Ala Ser Arg Lys Met Val Val Met Ala Arg Leu  
 1 5 10 15  
 Ser Arg Pro Glu Arg Pro Asp Leu Val Phe Glu Glu Glu Asp Leu Pro  
 20 25 30  
 Tyr Glu Glu Glu Ile Met Arg Asn Gln Phe Ser Val Lys Cys Trp Leu  
 35 40 45  
 Arg Tyr Ile Glu Phe Lys Gln Gly Ala Pro Lys Pro Arg Leu Asn Gln  
 50 55 60  
 Leu Tyr Glu Arg Ala Leu Lys Leu Leu Pro Cys Ser Tyr Lys Leu Trp  
 65 70 75 80  
 Tyr Arg Tyr Leu Lys Ala Arg Arg Ala Gln Val Lys His Arg Cys Val  
 85 90 95  
 Thr Asp Pro Ala Tyr Glu Asp Val Asn Asn Cys His Glu Arg Ala Phe  
 100 105 110  
 Val Phe Met His Lys Met Pro Arg Leu Trp Leu Asp Tyr Cys Gln Phe  
 115 120 125  
 Leu Met Asp Gln Gly Arg Val Thr His Thr Arg Arg Thr Phe Asp Arg  
 130 135 140  
 Ala Leu Arg Ala Leu Pro Ile Thr Gln His Ser Arg Ile Trp Pro Leu  
 145 150 155 160  
 Tyr Leu Arg Phe Leu Arg Ser His Pro Leu Pro Glu Thr Ala Val Arg  
 165 170 175  
 Gly Tyr Arg Arg Phe Leu Lys Leu Ser Pro Glu Ser Ala Glu Glu Tyr  
 180 185 190  
 Ile Glu Tyr Leu Lys Ser Ser Asp Arg Leu Asp Glu Ala Ala Gln Arg  
 195 200 205  
 Leu Ala Thr Val Val Asn Asp Glu Arg Phe Val Ser Lys Ala Gly Lys  
 210 215 220  
 Ser Asn Tyr Gln Leu Trp His Glu Leu Cys Asp Leu Ile Ser Gln Asn  
 225 230 235 240  
 Pro Asp Lys Val Gln Ser Leu Asn Val Asp Ala Ile Ile Arg Gly Gly  
 245 250 255  
 Leu Thr Arg Phe Thr Asp Gln Leu Gly Lys Leu Trp Cys Ser Leu Ala  
 260 265 270  
 Asp Tyr Tyr Ile Arg Ser Gly His Phe Glu Lys Ala Arg Asp Val Tyr  
 275 280 285  
 Glu Glu Ala Ile Arg Thr Val Met Thr Val Arg Asp Phe Thr Gln Val  
 290 295 300  
 Phe Asp Ser Tyr Ala Gln Phe Glu Glu Ser Met Ile Ala Ala Lys Met  
 305 310 315 320  
 Glu Thr Ala Ser Glu Leu Gly Arg Glu Glu Glu Asp Asp Val Asp Leu  
 325 330 335  
 Glu Leu Arg Leu Ala Arg Phe Glu His Leu Ile Ser Arg Arg Pro Leu

	340		345		350	
His	Leu	Ser	Ser	Val	Leu	Leu
	355		360		365	
Trp	His	Lys	Arg	Val	Ala	Leu
	370		375		380	
Asn	Thr	Tyr	Thr	Glu	Ala	Val
	385		390		395	
Gly	Lys	Pro	His	Thr	Leu	Trp
			405		410	
Asn	Gly	Gln	Leu	Asp	Asp	Ala
			420		425	
Val	Asn	Phe	Lys	Gln	Val	Asp
			435		440	
Gly	Glu	Leu	Glu	Leu	Arg	His
			450		455	
Leu	Arg	Lys	Ala	Thr	Ala	Leu
			465		470	
Ser	Glu	Pro	Val	Gln	Asn	Arg
			485		490	
Met	Leu	Ala	Asp	Leu	Glu	Glu
			500		505	
Ala	Val	Tyr	Asp	Arg	Ile	Leu
			515		520	
Val	Ile	Asn	Tyr	Ala	Met	Phe
			530		535	
Ser	Phe	Lys	Ala	Tyr	Glu	Arg
			545		550	
Val	Ser	Asp	Ile	Trp	Ser	Thr
			565		570	
Gly	Gly	Arg	Lys	Leu	Glu	Arg
			580		585	
Asp	Gly	Cys	Pro	Pro	Lys	Tyr
			595		600	
Gln	Leu	Glu	Glu	Glu	Trp	Gly
			610		615	
Glu	Arg	Ala	Thr	Arg	Ala	Val
			625		630	
Asn	Ile	Tyr	Ile	Lys	Arg	Ala
			645		650	
Arg	Gly	Ile	Tyr	Gln	Lys	Ala
			660		665	
Arg	Glu	Met	Cys	Leu	Arg	Phe
			675		680	
Ile	Asp	Arg	Ala	Arg	Ala	Ile
			690		695	
Pro	Arg	Thr	Thr	Gly	Ala	Phe
			705		710	
Arg	His	Gly	Asn	Glu	Asp	Thr
			725		730	
Ser	Val	Gln	Ala	Thr	Tyr	Asn
			740		745	
Met	Leu	Lys	Val	Ser	Gly	Ser
			755		760	
Pro	Gly	Gln	Ser	Gly	Met	Asp

```

      770              775              780
Glu Gln Leu Ala Ala Glu Ala Glu Arg Asp Gln Pro Leu Arg Ala Gln
785              790              795              800
Ser Lys Ile Leu Phe Val Arg Ser Asp Ala Ser Arg Glu Glu Leu Ala
      805              810              815
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp
      820              825              830
Glu Asp Glu Asp Glu Met Asp Leu Glu Pro Asn Glu Val Arg Leu Glu
      835              840              845
Gln Gln Ser Val Pro Ala Ala Val Phe Gly Ser Leu Lys Glu Asp
      850              855              860

```

<210> 4211  
 <211> 456  
 <212> DNA  
 <213> Homo sapiens

```

<400> 4211
ggggatcgct agcccccagc ttctcagaac taaatatgaa agctcttgct cgtctacgct
60
taggttacaac-agactccctg-ggcctactgt aggggtcaag agcagatttc cagacttca
120
agctggaaaa gagacgctcc aactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgcgt gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttaa aaagacgtaa
300
aattacactt tcactactac tggttcctat ccttggtgcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
420
gtacggaatt tgctccacaa acccccttgc tctaga
456

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<210> 4212  
 <211> 81  
 <212> PRT  
 <213> Homo sapiens

```

<400> 4212
Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg
1      5      10      15
Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg
20      25      30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala
35      40      45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg
50      55      60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp
65      70      75      80
Pro

```

<210> 4213  
<211> 383  
<212> DNA  
<213> Homo sapiens

<400> 4213  
naccggtacc tgtgccagcg cgcgcgcttc ttcgcagaga acgagggcct agacgactac  
60  
atggaggcac gcgagggcat gcacctcaag aacgtggact tccgtgagtt catggtggcc  
120  
ttcccggaacc cgccccggcc gccctggtac gcctgctcgt cggccttctg ggccgcggcg  
180  
ctgctcacgc tgcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac  
240  
taccacgtgg agaagctggt tggcctggag ggccccggct cggccagcag cgcaggcggt  
300  
ggcctcagcc ccagcgatga gctgctgccc ccgctcacc accgcctgcc gcgggtcaac  
360  
acagtagaca gcacggagct cgg  
383

<210> 4214  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 4214  
Xaa Ala Tyr Leu Cys Gln Arg Ala Arg Phe Phe Ala Glu Asn Glu Gly  
1 5 10 15  
Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val  
20 25 30  
Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro  
35 40 45  
Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu  
50 55 60  
Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His  
65 70 75 80  
Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser  
85 90 95  
Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu  
100 105 110  
Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu  
115 120 125

<210> 4215  
<211> 939  
<212> DNA  
<213> Homo sapiens

<400> 4215  
nggtacctcg gctgaataaa aattcaaaaa aacagcaatg gacaggaact tgagaagacg  
60  
ctggaagaaa gcaaagaaat ggatatcaaa cgtaaagaaa ataaaggcaa tgataccct  
120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg  
 180  
 gagatcctga tccagggtt gacagaagat atggtgactg ttttaatccg ggcctgcgtg  
 240  
 agcatgctgg gagtcctgt ggaccagat actttgcatg ccaccctttg tttctgtttg  
 300  
 agggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg  
 360  
 atcttgaatt tgaccagag ctcaggcttc aatgggttta ctcccctggt cacccttctc  
 420  
 ttaagacaca tcattgagga cccctgtacc cttcgtcata ccattggaaa ggttggtcgc  
 480  
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc  
 540  
 tctcgggaga tcaactacat ccttcgtgtc cttgggccag ccgcatgccg caatccagac  
 600  
 atattcacag aagtggccaa ctgctgtatc cgcctgcgcc ttcctgcccc tcgaggctca  
 660  
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag  
 720  
 ctggtgaaga ccacccttt gaagccctca cctctgcctg tcattcctga tactatcaag  
 780  
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat  
 840  
 aaatctgatc ctaaacctgg ggttatgacc caagaggttg gccagctcct gcaagacatg  
 900  
 ggtgatgatg tataccagca gtaccggtca cttacgcgt  
 939

&lt;210&gt; 4216

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4216

Met	Asp	Ile	Lys	Arg	Lys	Glu	Asn	Lys	Gly	Asn	Asp	Thr	Pro	Leu	Ala
1			5						10					15	
Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35				40					45				
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
		50				55					60				
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70				75					80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85						90					95	
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
			100					105					110		
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115					120					125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
		130				135					140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr

```

145          150          155          160
Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
          165          170          175
Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
          180          185          190
Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
          195          200          205
Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
          210          215          220
Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
          225          230          235          240
Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
          245          250          255
Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
          260          265          270Met Gly Asp Asp
Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
          275          280          285

```

&lt;210&gt; 4217

&lt;211&gt; 619

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4217

```

acacacacac gcacacaaaa ctcagccaca ggctcaccag ggtctctctc aacatgcaca
60
catacacaca cacacccttc agtcataggc tcacaagagt ctctcttggtc tctctctcat
120
acatacacac acacacacaa ccagccacag gcccacaaag gtgtctctct ctttgtccct
180
gtctgtctct tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg
240
tctcttttgc tctctcactc tctctcacac acatacacct cagccacagg cccacaaggg
300
tctctctcct tgtccctggc tcctctctct cgcacactcc cacacacaca catacagctc
360
agccacaggg ccacgagggg gtctctctct ctctctctct ctcacacaca cacacacaca
420
cacacacgcc tgtgcagctc cacagggggc tggggcagga gacagatctg aatacacata
480
ccacctgtg ctgtgagtgg ccactcccat ccaacaactg agactttctg ttactggggc
540
aagggtttct gccaaactca ctcccttat aatgaatgaa ttatccctca gaaggttcca
600
cagtcctccc ctggcgcg
619

```

&lt;210&gt; 4218

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4218

Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

```

1           5           10           15
Ser Leu Val Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr
20           25           30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr
35           40           45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser
50           55           60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro
65           70           75           80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro
85           90           95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu
100          105          110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln
115          120          125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr
130          135          140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn
145          150          155

```

<210> -4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

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ngcggccgcg cacctgctcc cgtcgcccta cagcaagatc acgccccgc ggaggcccca
60
ccgctgcagc agcggccacg gcagcgacaa cagcagcgtg ctgagcgggg agctcccgc
120
ggccatgggg aagacggccc tgttctacca cagcggcggc agcagcggct acgagagcgt
180
gatgcgggac agcagaggcca ccggcagcgc gtccctcgcg caggactcca cgagcgagaa
240
cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc
300
aggttctcag agacggaggc ttatccagc actatccctg gacacctctt cccctgtgag
360
aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccctgag gagcagccc
420
aggggccttg gggaaccttt gagattaaag tctnatgaaa tcgatgacgt ggagcgcctg
480
cagcggcgac gagggggtgc cagcaaggag gccatgtgct tcaatgcaaa gctgaagatt
540
ctggaacacc gccagcagag gatcgccgag gtccgcgcga agtacgagtg gctgatgaag
600
gagctggagg cgaccaaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660
gacttggagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
720
acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc
774

```

<210> 4220



<211> 258  
 <212> PRT  
 <213> Homo sapiens

<400> 4220

```

Xaa Gly Arg Ala Pro Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro
 1           5           10           15
Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20           25           30
Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35           40           45
Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50           55           60
Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65           70           75           80
Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85           90           95
Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100          105          110
Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115          120          125
Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130          135          140
Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145          150          155          160
Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165          170          175
Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180          185          190
Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195          200          205
Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210          215          220
Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225          230          235          240
Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245          250          255
Met Leu

```

<210> 4221  
 <211> 789  
 <212> DNA  
 <213> Homo sapiens

<400> 4221

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aatgtgaaga ggattaaaga ataaagaaaa aacaaaaaag tcttatacta aaataagaaa
60
tcagcccccattctggcacag ttctcatgca gaatattgca cccagtgtga actaacgcta
120
gaagcttcaa actgtataaa tttaaagtga ttgcatatt ataaaaataa agataaacat
180
atacatattt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
240

```

ttaacagaac tgaatctga gtgetctaaa tactgccacc tgtactgtaa ctatggctta  
 300  
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct  
 360  
 tcaagtagcg cgctccttgg aggatcacag ttctgaggtt caggttgtaa aacatttgct  
 420  
 ccatgtttct gtccatgctt cccccacca cccctccccc acctcttccc cagtcgtcca  
 480  
 aaaagcaccg tgcaagcacg cgttgtcact caagttcaca gaacacgctg gggtgagtg  
 540  
 agagggtctg ccagggtgaa aagatggctc aggtgttcag atgctctctt ttctccatgg  
 600  
 aaattccaca gccacaaacg tcaactggtt ctgtgctttt caccaacatt cttcccttaa  
 660  
 aaattggtgc tctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga  
 720  
 agcactatct tttccactta atttccaag aaagtatgaa gatacttgga acaggggctg  
 780  
 atcacagtc  
 789

<210> 4222  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 4222  
 Met Ala Tyr Met Cys Thr Glu Asn Lys Ile Pro Glu Lys Pro Phe Asp  
 1 5 10 15  
 Phe Phe Phe Phe Ser Phe Leu Gln Val Ala Arg Ser Leu Glu Asp His  
 20 25 30  
 Ser Ser Glu Val Gln Val Val Lys His Leu Leu His Val Leu Val His  
 35 40 45  
 Ala Ser Pro His His Pro Leu Pro Thr Ser Ser Pro Val Val Gln Lys  
 50 55 60  
 Ala Pro Cys Lys His Ala Leu Ser Leu Lys Phe Thr Glu His Ala Gly  
 65 70 75 80  
 Val Ser Ala Glu Gly Leu Pro Gly Ala Lys Asp Gly Pro Gly Val Gln  
 85 90 95  
 Met Leu Ser Phe Leu His Gly Asn Ser Thr Ala Thr Asn Val Thr Gly  
 100 105 110  
 Phe Cys Ala Phe His Gln His Ser Ser Leu Lys Asn Trp Cys Ser  
 115 120 125

<210> 4223  
 <211> 852  
 <212> DNA  
 <213> Homo sapiens

<400> 4223  
 atcctggacc agggctacta ctgggagcga gacacaagca acgtggtacg gcaagtcctg  
 60  
 gaggcctggg cctatttgca ctcaactcaag atcgtgcaca ggaatctcaa gctggagaac  
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccatctggct  
 180  
 aagctagaaa atggcctcat caaggagccc tgtgggaccc cogaagattt tgcccccaa  
 240  
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg  
 300  
 tacatcctgc tttcaggcaa tccacctttc tatgaggagg tggaagaaga tgattatgag  
 360  
 aaccatgata agaattctctt ccgcaagatc ctggctgggtg actatgagtt tgactctcca  
 420  
 tattgggatg atatttcgca ggcagccaaa gacctgggtc caaggctgat ggaggtggag  
 480  
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct  
 540  
 gcttctgata agaacatcaa ggatggtgtc tgtgcccaga ttgaaaagaa ctttgccagg  
 600  
 gccaaagtga agaaggctgt ccgagtgacc accctcatga aacgggtccg ggcaccagag  
 660  
 cagtcacaga cggtcgcagc ccagtcggcc tcagccacag aactgccac ccccggggct  
 720  
 gcagaccgta gtgccacccc agccacagat ggaagtgcc cccagccac tgatggcagt  
 780  
 gtcaccccag ccaccgatgg aagcatcact ccagccattg atgggagtgt caccacagcc  
 840  
 actgacagga gc  
 852

&lt;210&gt; 4224

&lt;211&gt; 284

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1			5					10					15		
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
		20					25					30			
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35				40						45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
	50				55			60							
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70				75						80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90						95	
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
			100					105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
		115				120						125			
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
	130					135					140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155			160		
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

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                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
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&lt;210&gt; 4225

&lt;211&gt; 470

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4225

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470

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&lt;210&gt; 4226

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4226

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Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
1          5          10          15
Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
20          25          30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
35          40          45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
50          55          60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

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65		70		75		80									
Thr	Ile	Ala	Pro	Gly	Val	Glu	Met	Ile	Val	Gly	Arg	Thr	Tyr	Ala	Leu
		85							90					95	
Pro	Val	Gln	Ala	Ala	Asp	Asn	Ala	Pro	Pro	Ala	Lys	Gln	Arg	Thr	Pro
		100						105					110		
Ile	Cys	Thr	Val	Tyr	Ile	Glu	Val	Leu	Pro	Pro	Asn	Asn	Gln	Ser	Pro
		115					120					125			
Pro	Arg	Phe	Pro	Gln	Leu	Met	Tyr	Ser	Leu	Glu	Ile	Ser	Glu	Ala	Met
	130					135					140				
Arg	Val	Gly	Ala	Val	Leu	Leu	Asn	Leu	Gln	Ala	Thr				
145					150					155					

&lt;210&gt; 4227

&lt;211&gt; 1199

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4227

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~~attataaatt-taacttctaa\_catgttttat\_ggttaaaatt~~ gtactttttt ccttttagcga

120

cattcaaatg catcacaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta

180

caaattcaga acagtacaga gcccgacccc ctgcttgcca ctctagaaaa gcaagaaatt

240

atagagcagc ttctatcaaa tttttccac aaggagaaaa atgagtcagc catagtcagt

300

gcaatccaga tattgtgtgac ttactttgag acacgacgac caacatttga aggccatata

360

gagatctgcc caccaggeat gagccattca gcttggtcag taaacaagag tgttctagaa

420

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480

gtgatgaaga ccacatgggg tgtgctggat cctcctgtgg ggaatacccg gttgaatgtc

540

attaggttga tatccagcct gcttcaaacc aataccagca gtataaatgg ggaccttatg

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660

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720

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780

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840

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900

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1020

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<210> 4228

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4228

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Arg	Asp	Gln	Met	Leu	Gln	Ile	Gln	Asn	Ser	Thr	Glu	Pro	Asp	Pro	Leu
		20					25						30		
Leu	Ala	Thr	Leu	Glu	Lys	Gln	Glu	Ile	Ile	Glu	Gln	Leu	Leu	Ser	Asn
	35					40						45			
Ile	Phe	His	Lys	Glu	Lys	Asn	Glu	Ser	Ala	Ile	Val	Ser	Ala	Ile	Gln
50					55						60				
Ile	Leu	Leu	Thr	Leu	Leu	Glu	Thr	Arg	Arg	Pro	Thr	Phe	Glu	Gly	His
65				70						75				80	
Ile	Glu	Ile	Cys	Pro	Pro	Gly	Met	Ser	His	Ser	Ala	Cys	Ser	Val	Asn
			85					90						95	
Lys	Ser	Val	Leu	Glu	Ala	Ile	Arg	Gly	Arg	Leu	Gly	Ser	Phe	His	Glu
		100					105						110		
Leu	Leu	Leu	Glu	Pro	Pro	Lys	Lys	Ser	Val	Met	Lys	Thr	Thr	Trp	Gly
	115					120						125			
Val	Leu	Asp	Pro	Pro	Val	Gly	Asn	Thr	Arg	Leu	Asn	Val	Ile	Arg	Leu
130						135					140				
Ile	Ser	Ser	Leu	Leu	Gln	Thr	Asn	Thr	Ser	Ser	Ile	Asn	Gly	Asp	Leu
145				150						155				160	
Met	Glu	Leu	Asn	Ser	Ile	Gly	Val	Ile	Leu	Asn	Met	Phe	Phe	Lys	Tyr
			165						170					175	
Thr	Trp	Asn	Asn	Phe	Leu	His	Thr	Gln	Val	Glu	Ile	Cys	Ile	Ala	Leu
		180					185						190		
Ile	Leu	Ala	Ser	Pro	Phe	Glu	Asn	Thr	Glu	Asn	Ala	Thr	Ile	Thr	Asp
	195					200						205			
Gln	Asp	Ser	Thr	Gly	Asp	Asn	Leu	Leu	Leu	Lys	His	Leu	Phe	Gln	Lys
210					215						220				
Cys	Gln	Leu	Ile	Glu	Arg	Ile	Leu	Glu	Ala	Trp	Glu	Met	Asn	Glu	Lys
225				230						235				240	
Lys	Gln	Ala	Glu	Gly	Gly	Arg	Arg	His	Gly	Tyr	Met	Gly	His	Leu	Thr
			245						250				255		
Arg	Ile	Ala	Asn	Cys	Ile	Val	His	Ser	Thr	Asp	Lys	Gly	Pro	Asn	Ser
		260					265						270		
Ala	Leu	Val	Gln	Gln	Leu	Ile	Lys	Gly	Lys	Leu	Phe	Val	Lys	Phe	Glu
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<211> 1612

<212> DNA

<213> Homo sapiens

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1260  
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1380  
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<211> 417

<212> PRT

<213> Homo sapiens

<400> 4230

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Leu	Arg	Pro	Asp	Thr	Asp	Phe	Gly	Gly	Asn	Met	Lys	Ser	Val	Leu	Thr	35	40	45	
Trp	Lys	His	Arg	Lys	Glu	His	Ala	Ile	Pro	His	Val	Val	Leu	Gly	Arg	50	55	60	
Asn	Leu	Pro	Gly	Gly	Ala	Trp	His	Ser	Ile	Glu	Gly	Ser	Met	Val	Ile	65	70	75	80
Leu	Ser	Gln	Gly	Gln	Trp	Met	Gly	Leu	Pro	Asp	Leu	Glu	Val	Lys	Asp	85	90	95	
Trp	Met	Gln	Lys	Lys	Arg	Arg	Gly	Leu	Arg	Asn	Ser	Arg	Ala	Thr	Ala	100	105	110	
Gly	Asp	Ile	Ala	His	Tyr	Tyr	Arg	Asp	Tyr	Val	Val	Lys	Lys	Gly	Leu	115	120	125	
Gly	His	Asn	Phe	Val	Ser	Gly	Ala	Val	Val	Thr	Ala	Val	Glu	Trp	Gly	130	135	140	
Thr	Pro	Asp	Pro	Ser	Ser	Cys	Gly	Ala	Gln	Asp	Ser	Ser	Pro	Leu	Phe	145	150	155	160
Gln	Val	Ser	Gly	Phe	Leu	Thr	Arg	Asn	Gln	Ala	Gln	Gln	Pro	Phe	Ser	165	170	175	
Leu	Trp	Ala	Arg	Asn	Val	Val	Leu	Ala	Thr	Gly	Thr	Phe	Asp	Ser	Pro	180	185	190	
Ala	Arg	Leu	Gly	Ile	Pro	Gly	Glu	Ala	Leu	Pro	Phe	Ile	His	His	Glu	195	200	205	
Leu	Ser	Ala	Leu	Glu	Ala	Ala	Thr	Arg	Val	Gly	Ala	Val	Thr	Pro	Ala	210	215	220	
Ser	Asp	Pro	Val	Leu	Ile	Ile	Gly	Ala	Gly	Leu	Ser	Ala	Ala	Asp	Ala	225	230	235	240
Val	Leu	Tyr	Ala	Arg	His	Tyr	Asn	Ile	Pro	Val	Ile	His	Ala	Phe	Arg	245	250	255	
Arg	Ala	Val	Asp	Asp	Pro	Gly	Leu	Val	Phe	Asn	Gln	Leu	Pro	Lys	Met	260	265	270	
Leu	Tyr	Pro	Glu	Tyr	His	Lys	Val	His	Gln	Met	Met	Arg	Glu	Gln	Ser	275	280	285	
Ile	Leu	Ser	Pro	Ser	Pro	Tyr	Glu	Gly	Tyr	Arg	Ser	Leu	Pro	Arg	His	290	295	300	
Gln	Leu	Leu	Cys	Phe	Lys	Glu	Asp	Cys	Gln	Ala	Val	Phe	Gln	Asp	Leu	305	310	315	320
Glu	Gly	Val	Glu	Lys	Val	Phe	Gly	Val	Ser	Leu	Val	Leu	Val	Leu	Ile	325	330	335	
Gly	Ser	His	Pro	Asp	Leu	Ser	Phe	Leu	Pro	Gly	Ala	Gly	Ala	Asp	Phe	340	345	350	
Ala	Val	Asp	Pro	Asp	Gln	Pro	Leu	Ser	Ala	Lys	Arg	Asn	Pro	Ile	Asp				



355	360	365
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370	375	380
Met Gly Pro Leu Ala Gly Asp Asn Phe Val Arg Phe Val Gln Gly Gly		
385	390	395
Ala Leu Ala Val Ala Ser Ser Leu Leu Arg Lys Glu Thr Arg Lys Pro		
405	410	415
Pro		

<210> 4231  
 <211> 1588  
 <212> DNA  
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 480  
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 1080  
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 1588

&lt;210&gt; 4232

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo-sapiens

&lt;400&gt; 4232

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 Glu Glu Lys Lys Ile Leu Ala Ile Glu Leu Glu Asn Leu Lys Ser Lys  
 35 40 45  
 Leu Val Glu Val Ile Glu Glu Val Asn Lys Val Lys Gln Glu Lys Thr  
 50 55 60  
 Val Leu Asn Ser Glu Val Leu Glu Gln Arg Lys Val Leu Glu Lys Cys  
 65 70 75 80  
 Asn Arg Val Ser Met Leu Ala Val Glu Glu Tyr Glu Glu Met Gln Val  
 85 90 95  
 Asn Leu Glu Leu Glu Lys Asp Leu Arg Lys Lys Ala Glu Ser Phe Ala  
 100 105 110  
 Gln Glu Met Phe Leu Glu Pro Asn Gln Gly Lys Lys Thr Lys Pro Pro  
 115 120 125  
 Phe Gly Arg Gln Ser Ser Ile Leu Asp Gln Gln Leu Ala Leu Asp Glu  
 130 135 140  
 Asn Ala Lys Leu Thr Gln Gln Leu Glu Glu Arg Ile Gln His Gln  
 145 150 155 160  
 Gln Lys Val Lys Glu Leu Glu Glu Gln Leu Glu Asn Glu Thr Leu His  
 165 170 175  
 Lys Glu Ile His Asn Leu Lys Gln Gln Leu Glu Leu Leu Glu Glu Asp  
 180 185 190  
 Lys Lys Glu Leu Glu Leu Lys Tyr Gln Asn Ser Glu Glu Lys Ala Arg  
 195 200 205  
 Asn Leu Lys His Ser Val Asp Glu Leu Gln Lys Arg Val Asn Gln Ser  
 210 215 220  
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<212> DNA
<213> Homo sapiens
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420
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480
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540
gatgccaaagt ctgtaagcaa gcagtatact ttgaaagtaa caaagctaga gcatgatgca
600
gaacaggcaa aagtcgaact aactgaaaca caaaagcagc tacaggagct ggaaaaacaaa
660

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1980  
ggggaagcaa ttcggcggca actagcatca tcagagtatc aagaggctgg agatggagtc  
2040  
ctgaagccag aaggaggagg catgctttca gaagaattaa aatgggcac cagacctgaa  
2100  
agtatgaaat taagtgaag agaaagagaa atggacagtt cagcaagcag cttagaaca  
2160  
cagccaaatc ctcaaaagct ctgggaagat atcccagaat tacctccaat tcatagttct  
2220  
ttagaccccc ccagtgggca tatgttaggt aatgagaata aaacagaaac agatgataat  
2280

cagtttacaa aatctcacag tcgactgtca tcccaaattc aggttggtgg aaatgtggga  
 2340  
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 2400  
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 2460  
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 2520  
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 2580  
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 2640  
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 2700  
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 2820  
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 2827

<210> 4234

<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

Gly	Ser	Leu	Lys	Gly	Asp	His	Ile	Leu	Tyr	His	Leu	Ile	Leu	Ile	Trp
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Gly	Ile	Ile	Phe	Ile	Ser	His	Gln	Asp	Lys	Ile	Pro	Gly	Gly	Gly	Ile
			20				25					30			
Thr	Cys	Lys	Val	His	Thr	Ser	Pro	Pro	Met	Tyr	Ser	Leu	Asp	Arg	Ile
		35					40					45			
Phe	Ala	Gly	Phe	Arg	Thr	Arg	Ser	Gln	Met	Leu	Leu	Gly	His	Ile	Glu
	50					55				60					
Glu	Gln	Asp	Lys	Val	Leu	His	Cys	Gln	Phe	Ser	Asp	Asn	Ser	Asp	Asp
65				70					75				80		
Glu	Glu	Ser	Glu	Gly	Gln	Glu	Lys	Ser	Gly	Thr	Arg	Cys	Arg	Ser	Arg
			85						90				95		
Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
			100					105					110		
Asp	Thr	Gln	Asp	Glu	Thr	Gln	Lys	Ser	Asp	Leu	Glu	Asn	Glu	Asp	Leu
	115						120					125			
Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
	130						135					140			
Lys	Asn	Ser	Glu	Arg	Ile	Leu	Thr	Glu	Ala	Lys	Gln	Lys	Met	Arg	Glu
145					150				155					160	
Leu	Thr	Val	Asn	Ile	Lys	Met	Lys	Glu	Asp	Leu	Ile	Lys	Glu	Leu	Ile
			165					170					175		
Lys	Thr	Gly	Asn	Asp	Ala	Lys	Ser	Val	Ser	Lys	Gln	Tyr	Thr	Leu	Lys
		180						185					190		
Val	Thr	Lys	Leu	Glu	His	Asp	Ala	Glu	Gln	Ala	Lys	Val	Glu	Leu	Thr
		195					200					205			
Glu	Thr	Gln	Lys	Gln	Leu	Gln	Glu	Leu	Glu	Asn	Lys	Asp	Leu	Ser	Asp

210		215		220
Val Ala Met Lys Val Lys Leu Gln Lys Glu Phe Arg Lys Lys Val Asp				
225		230		235
Ala Ala Lys Leu Arg Val Gln Val Leu Gln Lys Lys Gln Gln Asp Ser				240
	245		250	255
Lys Lys Leu Ala Ser Leu Ser Ile Gln Asn Glu Lys Arg Ala Asn Glu				
	260	265		270
Leu Glu Gln Ser Val Asp His Met Lys Tyr Gln Lys Ile Gln Leu Gln				
275		280		285
Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val				
290		295		300
Ile Lys Arg Asp Gln Gln Lys Ile Lys Val Ile Gln Leu Lys Thr Gly				
305		310		315
Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn				320
	325		330	335
Leu Lys Arg Arg Lys Gly Ser Phe Gly Ser Ile Asp His Leu Gln Lys				
	340	345		350
Leu Asp Glu Gln Lys Lys Trp Leu Asp Glu Glu Val Glu Lys Val Leu				
355		360		365
Asn Gln Arg Gln Glu Leu Glu Leu Glu Ala Asp Leu Lys Lys Arg				
370		375		380

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Glu Ala Ile Val Ser Lys Lys Glu Ala Leu Leu Gln Glu Lys Ser His				
385		390		395
Leu Glu Asn Lys Lys Leu Arg Ser Ser Gln Ala Leu Asn Thr Asp Ser				
	405		410	415
Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Leu Ser Glu				
	420	425		430
Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile				
435		440		445
Ser Glu Gln Val Glu Val Leu Gln Lys Glu Lys Asp Gln Leu Gln Lys				
450		455		460
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser				
465		470		475
Pro Glu Glu Glu His Val Leu Phe Gln Leu Glu Glu Gly Ile Glu Ala				
	485		490	495
Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln				
	500	505		510
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn				
515		520		525
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile				
530		535		540
Leu Phe Arg Tyr Phe Asn Lys Val Val Asn Leu Arg Glu Ala Glu Arg				
545		550		555
Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg				
	565		570	575
Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu				
	580		585	590
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys				
595		600		605
Met Gln Leu Leu Leu His His Phe Lys Glu Gln Asp Gly Glu Gly Ile				
610		615		620
Met Glu Thr Phe Lys Thr Tyr Glu Asp Lys Ile Gln Gln Leu Glu Lys				
625		630		635
Asp Leu Tyr Phe Tyr Lys Lys Thr Ser Arg Asp His Lys Lys Lys Leu				

645 650 655  
 Lys Glu Leu Val Gly Glu Ala Ile Arg Arg Gln Leu Ala Ser Ser Glu  
 660 665 670  
 Tyr Gln Glu Ala Gly Asp Gly Val Leu Lys Pro Glu Gly Gly Gly Met  
 675 680 685  
 Leu Ser Glu Glu Leu Lys Trp Ala Ser Arg Pro Glu Ser Met Lys Leu  
 690 695 700  
 Ser Gly Arg Glu Arg Glu Met Asp Ser Ser Ala Ser Ser Leu Arg Thr  
 705 710 715 720  
 Gln Pro Asn Pro Gln Lys Leu Trp Glu Asp Ile Pro Glu Leu Pro Pro  
 725 730 735  
 Ile His Ser Ser Leu Ala Pro Pro Ser Gly His Met Leu Gly Asn Glu  
 740 745 750  
 Asn Lys Thr Glu Thr Asp Asp Asn Gln Phe Thr Lys Ser His Ser Arg  
 755 760 765  
 Leu Ser Ser Gln Ile Gln Val Val Gly Asn Val Gly Arg Leu His Gly  
 770 775 780  
 Val Thr Pro Val Lys Leu Cys Arg Lys Glu Leu Arg Gln Ile Ser Ala  
 785 790 795 800  
 Leu Glu Leu Ser Leu Arg Arg Ser Ser Leu Gly Val Gly Ile Gly Ser  
 805 810 815  
 Met Ala Ala Asp Ser Ile Glu Val Ser Arg Lys Pro Arg Asp Leu Lys  
 820 825 830  
 Thr

&lt;210&gt; 4235

&lt;211&gt; 971

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4235

ngacagcgag cgggggagac ttgccaataa agttaggctc caacagctgc tgttgccacc  
 60  
 accactagtt caagcaccat gcagtttacc tcaatatcaa attctttgac ctccactgct  
 120  
 gctattgggc tctcatttac aacttcaacg actaccacgg ccactttcac caccaacact  
 180  
 actaccacaa tcaccagtgg ctttactgtg aacaaaaacc aactgttacc aagagggttt  
 240  
 gaaaaccttg taccttatac ttcaactgtt agtgtagtag caactcctgt gatgacatat  
 300  
 ggtcatctgg agggctcttat aaatgagtgg aaccttgagc tggaagatca agagaagtac  
 360  
 tttcttctcc aggccactca ggtcaatgct tgggaccata cattgattga gaatggtgag  
 420  
 atgattcgta ttttaccatgg agaagtgaac aaagtgaac tggatcagaa aagattggaa  
 480  
 caagaattgg attttacct gtcacagcag caggaactag aatttctgtt gacttattta  
 540  
 gaggagtcta cgcgtgacca gagtggactt cattatctgc aggatgcaga tgaggagcat  
 600  
 gtggagatct ccaccagatc tgcagaattc tgaatgccca tatggactcc ctgcagtgga  
 660

ttgatcggaa ttcaggcatg ctgcgaagga aggtagaagt ggtaacacgg gttttcgagg  
 720  
 attatcgta caggagcat gcacacaatg tcaacactgc tttttagtga atgaccatat  
 780  
 cttcagcatg tcgtttctgg attattacct acaaattctg atgttaaata gagtagtatt  
 840  
 tataactaat atttcatctt gatcataatg aattgtgcat cttttttttc atttaagtat  
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 960  
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 971

<210> 4236  
 <211> 198  
 <212> PRT  
 <213> Homo sapiens

<400> 4236  
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 Ser Phe Thr Thr Ser Thr Thr Thr Ala Thr Phe Thr Thr Asn Thr  
 35 40 45  
 Thr Thr Thr Ile Thr Ser Gly Phe Thr Val Asn Gln Asn Gln Leu Leu  
 50 55 60  
 Ser Arg Gly Phe Glu Asn Leu Val Pro Tyr Thr Ser Thr Val Ser Val  
 65 70 75 80  
 Val Ala Thr Pro Val Met Thr Tyr Gly His Leu Glu Gly Leu Ile Asn  
 85 90 95  
 Glu Trp Asn Leu Glu Leu Glu Asp Gln Glu Lys Tyr Phe Leu Leu Gln  
 100 105 110  
 Ala Thr Gln Val Asn Ala Trp Asp His Thr Leu Ile Glu Asn Gly Glu  
 115 120 125  
 Met Ile Arg Ile Leu His Gly Glu Val Asn Lys Val Lys Leu Asp Gln  
 130 135 140  
 Lys Arg Leu Glu Gln Glu Leu Asp Phe Ile Leu Ser Gln Gln Gln Glu  
 145 150 155 160  
 Leu Glu Phe Leu Leu Thr Tyr Leu Glu Glu Ser Thr Arg Asp Gln Ser  
 165 170 175  
 Gly Leu His Tyr Leu Gln Asp Ala Asp Glu Glu His Val Glu Ile Ser  
 180 185 190  
 Thr Arg Ser Ala Glu Phe  
 195

<210> 4237  
 <211> 560  
 <212> DNA  
 <213> Homo sapiens

<400> 4237  
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 60



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 120  
 aattgtctcg ccagtgtcag gaggcaggtac cggcattcct ggccatcctc ttcaccctcc  
 180  
 ccacaccgtt tctctttcca ctccccggaa ctctccctg tccccatcct ggactccttg  
 240  
 tcctgttttt tggactcctt gtctgttttc ctggactcct tgcagatcgc cagggcaatg  
 300  
 ggcgtagcag acgaggccct gggcaatgtg cggactgtgc gtgccttcgc catggagcaa  
 360  
 cggaagagg agcgtatgg ggcagagctg gaagcctgcc gctgccgagc agaggagctg  
 420  
 ggccgcgcca tcgcttgtt ccaagggctt tccaacatcg cttcaactg tgagtggagc  
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<210> 4238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4238

Trp	Ala	Gln	Ala	Ser	Glu	Asn	Cys	Leu	Ala	Ser	Val	Arg	Ser	Arg	Tyr
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Arg	His	Ser	Trp	Pro	Ser	Ser	Ser	Pro	Ser	Pro	His	Arg	Phe	Ser	Phe
			20					25					30		
His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
		35				40					45				
Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
	50				55				60						
Ala	Met	Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg
65				70				75				80			
Ala	Phe	Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu
			85					90					95		
Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
		100					105						110		
Phe	Gln	Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Glu				
		115					120								

<210> 4239

<211> 3127

<212> DNA

<213> Homo sapiens

<400> 4239

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 120  
 aagaccagca aaaagttaa gttcttcaag ttcaagggtt ttgggagtct ctccaacctc  
 180

cctcgggtcct tcactctgag acgatccctca gcttccatca gtaggcagtc ccatttggag  
240  
cctgacacct ttgaagccac gcaggatgac atgggtgacgg tgcccaagag tccccagcc  
300  
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360  
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720  
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780  
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840  
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1380  
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1440  
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1560  
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1620  
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1680  
gaactgtcag aaaatggggc ccctgaaggg gactggggca agaccttcac agtccccatc  
1740  
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1800

aaccggccac tggaggtggg ccttctgcgc aaggtaagg agctgctggc agaagtggat  
1860  
gcccggacgc tggcccggca tgtaccaag gtggactgcc tggttgctag gatactgggc  
1920  
gttaccaagg agatgcagac cctaattggga gtccgctggg gcatggaaet gtcaccctc  
1980  
ccccatggcc ggcagctacg cctagacctg ctggaaagg tccacaccat gtccatcatg  
2040  
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2100  
aagaccattc agctggcggc cgagctacgg gggactatgg gcaacatgtt cagcttcgcg  
2160  
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2220  
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2460  
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2940  
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3120  
aaaaaaa  
3127

&lt;210&gt; 4240

&lt;211&gt; 860

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4240

Met Thr Glu Gly Thr Lys Lys Thr Ser Lys Lys Phe Lys Phe Phe Lys

1	5	10	15
Phe Lys Gly Phe Gly Ser Leu Ser Asn Leu Pro Arg Ser Phe Thr Leu			
20	25	30	
Arg Arg Ser Ser Ala Ser Ile Ser Arg Gln Ser His Leu Glu Pro Asp			
35	40	45	
Thr Phe Glu Ala Thr Gln Asp Asp Met Val Thr Val Pro Lys Ser Pro			
50	55	60	
Pro Ala Tyr Ala Arg Ser Ser Asp Met Tyr Ser His Met Gly Thr Met			
65	70	75	80
Pro Arg Pro Ser Ile Lys Lys Ala Gln Asn Ser Gln Ala Ala Arg Gln			
85	90	95	
Ala Gln Glu Ala Gly Pro Lys Pro Asn Leu Val Pro Gly Gly Val Pro			
100	105	110	
Asp Pro Pro Gly Leu Glu Ala Ala Lys Glu Val Met Val Lys Ala Thr			
115	120	125	
Gly Pro Leu Glu Asp Thr Pro Ala Met Glu Pro Asn Pro Ser Ala Val			
130	135	140	
Glu Val Asp Pro Ile Arg Lys Pro Glu Val Pro Thr Gly Asp Val Glu			
145	150	155	160
Glu Glu Arg Pro Pro Arg Asp Val His Ser Glu Arg Ala Ala Gly Glu			
165	170	175	
Pro Glu Ala Gly Ser Asp Tyr Val Lys Phe Ser Lys Glu Lys Tyr Ile			
180	185	190	
Leu Asp Ser Ser Pro Glu Lys Leu His Lys Glu Leu Glu Glu Leu			
195	200	205	
Lys Leu Ser Ser Thr Asp Leu Arg Ser His Ala Trp Tyr His Gly Arg			
210	215	220	
Ile Pro Arg Glu Val Ser Glu Thr Leu Val Gln Arg Asn Gly Asp Phe			
225	230	235	240
Leu Ile Arg Asp Ser Leu Thr Ser Leu Gly Asp Tyr Val Leu Thr Cys			
245	250	255	
Arg Trp Arg Asn Gln Ala Leu His Phe Lys Ile Asn Lys Val Val Val			
260	265	270	
Lys Ala Gly Glu Ser Tyr Thr His Ile Gln Tyr Leu Phe Glu Gln Glu			
275	280	285	
Ser Phe Asp His Val Pro Ala Leu Val Arg Tyr His Val Gly Ser Arg			
290	295	300	
Lys Ala Val Ser Glu Gln Ser Gly Ala Ile Ile Tyr Cys Pro Val Asn			
305	310	315	320
Arg Thr Phe Pro Leu Arg Tyr Leu Glu Ala Ser Tyr Gly Leu Gly Gln			
325	330	335	
Gly Ser Ser Lys Pro Ala Ser Pro Val Ser Pro Ser Gly Pro Lys Gly			
340	345	350	
Ser His Met Lys Arg Arg Ser Val Thr Met Thr Asp Gly Leu Thr Ala			
355	360	365	
Asp Lys Val Thr Arg Ser Asp Gly Cys Pro Thr Ser Thr Ser Leu Pro			
370	375	380	
Arg Pro Arg Asp Ser Ile Arg Ser Cys Ala Leu Ser Met Asp Gln Ile			
385	390	395	400
Pro Asp Leu His Ser Pro Met Ser Pro Ile Ser Glu Ser Pro Ser Ser			
405	410	415	
Pro Ala Tyr Ser Thr Val Thr Arg Val His Ala Ala Pro Ala Ala Pro			
420	425	430	
Ser Ala Thr Ala Leu Pro Ala Ser Pro Val Ala Arg Cys Ser Ser Glu			

435	440	445
Pro Gln Leu Cys	Pro Gly Ser Ala	Pro Lys Thr His Gly Glu Ser Asp
450	455	460
Lys Gly Pro His Thr	Ser Pro Ser His Thr	Leu Gly Lys Ala Ser Pro
465	470	475
Ser Pro Ser Leu	Ser Tyr Ser Asp	Pro Asp Ser Gly His Tyr Cys
485	490	495
Gln Leu Gln Pro	Pro Val Arg Gly	Ser Arg Glu Trp Ala Ala Thr Glu
500	505	510
Thr Ser Ser Gln	Gln Ala Arg Ser Tyr	Gly Glu Arg Leu Lys Glu Leu
515	520	525
Ser Glu Asn Gly	Ala Pro Glu Gly	Asp Trp Gly Lys Thr Phe Thr Val
530	535	540
Pro Ile Val Glu	Val Thr Ser Ser	Phe Asn Pro Ala Thr Phe Gln Ser
545	550	555
Leu Leu Ile Pro	Arg Asp Asn Arg	Pro Leu Glu Val Gly Leu Leu Arg
565	570	575
Lys Val Lys Glu	Leu Leu Ala Glu	Val Asp Ala Arg Thr Leu Ala Arg
580	585	590
His Val Thr Lys	Val Asp Cys Leu	Val Ala Arg Ile Leu Gly Val Thr
595	600	605
Lys Glu Met Gln	Thr Leu Met Gly	Val Arg Trp Gly Met Glu Leu Leu
610	615	620
Thr Leu Pro His	Gly Arg Gln Leu	Arg Leu Asp Leu Leu Glu Arg Phe
625	630	635
His Thr Met Ser	Ile Met Leu Ala	Val Asp Ile Leu Gly Cys Thr Gly
645	650	655
Ser Ala Glu Glu	Arg Ala Ala Leu	Leu His Lys Thr Ile Gln Leu Ala
660	665	670
Ala Glu Leu Arg	Gly Thr Met Gly	Asn Met Phe Ser Phe Ala Ala Val
675	680	685
Met Gly Ala Leu	Asp Met Ala Gln	Ile Ser Arg Leu Glu Gln Thr Trp
690	695	700
Val Thr Leu Arg	Gln Arg His Thr	Glu Gly Ala Ile Leu Tyr Glu Lys
705	710	715
Lys Leu Lys Pro	Phe Leu Lys Ser	Leu Asn Glu Gly Lys Glu Gly Pro
725	730	735
Pro Leu Ser Asn	Thr Thr Phe Pro	His Val Leu Pro Leu Ile Thr Leu
740	745	750
Leu Glu Cys Asp	Ser Ala Pro Pro	Glu Gly Pro Glu Pro Trp Gly Ser
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Thr Val Ala His	His Gly Gly Leu	Tyr His Thr Asn Ala Glu Val Lys
785	790	795
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Glu Phe Gln Met	Arg Leu Leu Trp	Gly Ser Gln Gly Ala Ser Ser Ser
820	825	830
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 <212> DNA  
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 <212> PRT  
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	515	520
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Val Ile Phe Phe Ser	Val Leu Gly Val Val Phe Gly Lys Gly Asn Thr	635
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Ala Phe Trp Ile Val	Phe Ser Ile Ile His Ile Ile Ala Thr Leu Leu	655
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Cys Ser Gly Pro Leu	Tyr Val Asp Arg Met Val Leu Leu Val Met Gly	700
	705	710
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Asn Asp Phe Ala Ser	Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu	735
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Leu Tyr Phe Ala Phe	Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg	750
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Ile Lys Leu Ile Pro	Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp	765
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Gly Phe Ala Leu Phe	Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys	780
	785	790
Thr Pro Ala Glu Ser	Arg Glu His Asn Arg Asp Cys Ile Leu Leu Asp	795
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Phe Phe Asp Asp His Asp Ile Trp His Phe Leu Ser Ser Ile Ala Met					
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&lt;211&gt; 5755

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&lt;213&gt; Homo sapiens

&lt;400&gt; 4247

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<210> 4248  
 <211> 1297  
 <212> PRT  
 <213> Homo sapiens

<400> 4248  
 His Pro Leu Asp Lys Arg Thr Gly Glu Arg Glu Leu Gly Gly Lys Ser  
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 Gly Glu Asp Arg Gly Ala Pro Ala Gly Ala Thr Ser Phe Pro Ala  
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 Ala Pro Ser Pro Leu Pro Leu His Thr His Ala Arg Ser Leu Ala Gly  
 35 40 45  
 Ala Arg Thr Pro Pro Ala Pro Asp Pro His Leu Gly Gly Arg His Thr  
 50 55 60  
 Leu Gly Ser Pro Ser Arg Gly Ser Arg Ser Gly Met Glu Ala Ala Arg  
 65 70 75 80  
 Thr Glu Arg Pro Ala Gly Arg Pro Gly Ala Pro Leu Val Arg Thr Gly  
 85 90 95  
 Leu Leu Leu Leu Ser Thr Trp Val Leu Ala Gly Ala Glu Ile Thr Trp  
 100 105 110  
 Asp Ala Thr Gly Gly Pro Gly Arg Pro Ala Ala Pro Ala Ser Arg Pro  
 115 120 125  
 Pro Ala Leu Ser Pro Leu Ser Pro Arg Ala Val Ala Ser Gln Trp Pro  
 130 135 140  
 Glu Glu Leu Ala Ser Ala Arg Arg Ala Ala Val Leu Gly Arg Arg Ala  
 145 150 155 160  
 Gly Pro Glu Leu Leu Pro Gln Gln Gly Gly Arg Gly Gly Glu Met  
 165 170 175  
 Gln Val Glu Ala Gly Gly Thr Ser Pro Ala Gly Glu Arg Arg Gly Arg  
 180 185 190  
 Gly Ile Pro Ala Pro Ala Lys Leu Gly Gly Ala Arg Arg Ser Arg Arg  
 195 200 205  
 Ala Gln Pro Pro Ile Thr Gln Glu Arg Gly Asp Ala Trp Ala Thr Ala



210	215	220
Pro Ala Asp Gly Ser Arg Gly Ser Arg Pro Leu Ala Lys Gly Ser Arg		
225	230	235
Glu Glu Val Lys Ala Pro Arg Ala Gly Gly Ser Ala Ala Glu Asp Leu		
	245	250
Arg Leu Pro Ser Thr Ser Phe Ala Leu Thr Gly Asp Ser Ala His Asn		
	260	265
Gln Ala Met Val His Trp Ser Gly His Asn Ser Ser Val Ile Leu Ile		
	275	280
Leu Thr Lys Leu Tyr Asp Phe Asn Leu Gly Ser Val Thr Glu Ser Ser		
	290	295
Leu Trp Arg Ser Thr Asp Tyr Gly Thr Thr Tyr Glu Lys Leu Asn Asp		
305	310	315
Lys Val Gly Leu Lys Thr Val Leu Ser Tyr Leu Tyr Val Asn Pro Thr		
	325	330
Asn Lys Arg Lys Ile Met Leu Leu Ser Asp Pro Glu Met Glu Ser Ser		
	340	345
Ile Leu Ile Ser Ser Asp Glu Gly Ala Thr Tyr Gln Lys Tyr Arg Leu		
	355	360
Thr Phe Tyr Ile Gln Ser Leu Leu Phe His Pro Lys Gln Glu Asp Trp		
370	375	380
Val Leu Ala Tyr Ser Leu Asp Gln Lys Leu Tyr Ser Ser Met Asp Phe		
385	390	395
Gly Arg Arg Trp Gln Leu Met His Glu Arg Ile Thr Pro Asn Arg Phe		
	405	410
Tyr Trp Ser Val Ala Gly Leu Asp Lys Glu Ala Asp Leu Val His Met		
	420	425
Glu Val Arg Thr Thr Asp Gly Tyr Ala His Tyr Leu Thr Cys Arg Ile		
	435	440
Gln Glu Cys Ala Glu Thr Thr Arg Ser Gly Pro Phe Ala Arg Ser Ile		
	450	455
Asp Ile Ser Ser Leu Val Val Gln Asp Glu Tyr Ile Phe Ile Gln Val		
465	470	475
Thr Thr Ser Gly Arg Ala Ser Tyr Tyr Val Ser Tyr Arg Arg Glu Ala		
	485	490
Phe Ala Gln Ile Lys Leu Pro Lys Tyr Ser Leu Pro Lys Asp Met His		
	500	505
Ile Ile Ser Thr Asp Glu Asn Gln Val Phe Ala Ala Val Gln Glu Trp		
	515	520
Asn Gln Asn Asp Thr Tyr Asn Leu Tyr Ile Ser Asp Thr Arg Gly Ile		
	530	535
Tyr Phe Thr Leu Ala Met Glu Asn Ile Lys Ser Ser Arg Gly Leu Met		
545	550	555
Gly Asn Ile Ile Ile Glu Leu Tyr Glu Val Ala Gly Ile Lys Gly Ile		
	565	570
Phe Leu Ala Asn Lys Lys Val Asp Asp Gln Val Lys Thr Tyr Ile Thr		
	580	585
Tyr Asn Lys Gly Arg Asp Trp Arg Leu Leu Gln Ala Pro Asp Val Asp		
	595	600
Leu Arg Gly Ser Pro Val His Cys Leu Leu Pro Phe Cys Ser Leu His		
	610	615
Leu His Leu Gln Leu Ser Glu Asn Pro Tyr Ser Ser Gly Arg Ile Ser		
625	630	635
Ser Lys Glu Thr Ala Pro Gly Leu Val Val Ala Thr Gly Asn Ile Gly		

3446

1075                      1080                      1085  
 His Asn Pro Asp Ile Pro Glu Trp Arg Lys Asp Ile Gly Asn Val Ile  
 1090                      1095                      1100  
 Lys Arg Ala Leu Val Lys Val Thr Ser Val Pro Glu Asp Gln Ile Leu  
 1105                      1110                      1115                      1120  
 Ile Ala Val Phe Pro Gly Leu Pro Thr Ser Ala Glu Leu Phe Ile Leu  
 1125                      1130                      1135  
 Pro Pro Lys Asn Leu Thr Glu Arg Arg Lys Gly Asn Glu Gly Asp Leu  
 1140                      1145                      1150  
 Glu Gln Ile Val Glu Thr Leu Phe Asn Ala Leu Asn Gln Asn Leu Val  
 1155                      1160                      1165  
 Gln Phe Glu Leu Lys Pro Gly Val Gln Val Ile Val Tyr Val Thr Gln  
 1170                      1175                      1180  
 Leu Thr Leu Ala Pro Leu Val Asp Ser Ser Ala Gly His Ser Ser Ser  
 1185                      1190                      1195                      1200  
 Ala Met Leu Met Leu Leu Ser Val Val Phe Val Gly Leu Ala Val Phe  
 1205                      1210                      1215  
 Leu Ile Tyr Lys Phe Lys Arg Lys Ile Pro Trp Ile Asn Ile Tyr Ala  
 1220                      1225                      1230  
 Gln Val Gln His Asp Lys Glu Gln Glu Met Ile Gly Ser Val Ser Gln  
 1235                      1240                      1245  
 Ser Glu Asn Ala Pro Lys Ile Thr Leu Ser Asp Phe Thr Glu-Pro-Glu  
 1250                      1255                      1260  
 Glu Leu Leu Asp Lys Glu Leu Asp Thr Arg Val Ile Gly Gly Ile Ala  
 1265                      1270                      1275                      1280  
 Thr Ile Ala Asn Ser Glu Ser Thr Lys Glu Ile Pro Asn Cys Thr Ser  
 1285                      1290                      1295  
 Val

<210> 4249  
 <211> 553  
 <212> DNA  
 <213> Homo sapiens

<400> 4249  
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 120  
 cccagcacgc aacatggtta aattcgcaat gcctcaggca tcaacccgag agtaccaggc  
 180  
 ccacaggaag gcagcataat aggaccccaa acaaggagga aaagcagcct cctgaaaccg  
 240  
 accctgatat cagaaccagc agacatgggc actcagcagt tcttacaact gaatcccaat  
 300  
 ctgcaaaaagt ttagtagaga catggaagac gtaaagggga cccaagcaa gcctctagag  
 360  
 aattataaca tggttgctgg gcttggtggc tcacgcgtgt catcgcagca ctttgggagg  
 420  
 ctgaggcagg aggatcgctt gagcccagga gttcaagacc agcctggacc acatagttag  
 480  
 acccccatct cataaaaaat aaaaaaaaaat tgaattacaa cacgaggtga caaaagcact  
 540

ggatgagatt aac  
553

<210> 4250  
<211> 164  
<212> PRT  
<213> Homo sapiens

<400> 4250  
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Leu Lys Leu Phe Leu Arg Asn Ser Thr Ala Ser Arg Thr Lys Ile Lys  
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Met Ile Tyr Lys Asn Ala Lys Thr Pro Ser Thr Gln His Gly Lys Ile  
35 40 45  
Arg Asn Ala Ser Gly Ile Asn Pro Arg Val Pro Gly Pro Gln Glu Gly  
50 55 60  
Ser Ile Ile Gly Pro Gln Thr Arg Arg Lys Ser Ser Leu Leu Lys Pro  
65 70 75 80  
Thr Leu Ile Ser Glu Pro Ala Asp Met Gly Thr Gln Gln Phe Leu Gln  
85 90 95  
Leu Asn Pro Asn Leu Gln Lys Phe Ser Arg Asp Met Glu Asp Val Lys  
100 105 110  
Gly Thr Pro Ser Lys Pro Leu Glu Asn Tyr Asn Met Leu Ala Gly Leu  
115 120 125  
Gly Gly Ser Arg Val Ser Ser Gln His Phe Gly Arg Leu Arg Gln Glu  
130 135 140  
Asp Arg Leu Ser Pro Gly Val Gln Asp Gln Pro Gly Pro His Ser Glu  
145 150 155 160  
Thr Pro Ile Ser

<210> 4251  
<211> 1574  
<212> DNA  
<213> Homo sapiens

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aaaaggggcg cgcggggggg gtccccca caaaaaagg gggggaaagg aattcgcccc  
120  
gggggggggc caggccctaa cccatttat ttcattccac agatgagggc aaccttaaga  
180  
gggaaggggg agatggcagg gccagcgggc gcaggaagtg ccttcccacc ccaggacct  
240  
gacacatctc gtctccctc tttccgcac tgtgggcaca aagacacttt ttcttccgca  
300  
ggggcgggag ccctagttc caactgag gacgcgtgac atggtgggca ccggaaagga  
360  
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420  
cgcccccttc ccactcacca cccccacccc aggtgctggg ggtcccttat tttatgcaa  
480

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&lt;210&gt; 4252

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4252

Met Gly Val Gly Arg Gly Pro Val Glu Pro Ile Thr Ser Leu His Ile  
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 Thr Asp Pro Asp Pro Glu Ser Gln Glu Leu Gln Ile Gly Gly Thr Cys  
 20 25 30  
 Pro Asp Ile Thr Lys Arg Tyr Leu Arg Leu Thr Cys Ala Pro Asp Pro  
 35 40 45  
 Ser Thr Val Arg Pro Val Ala Val Leu Lys Lys Ser Leu Cys Met Val  
 50 55 60  
 Lys Cys His Trp Lys Glu Lys Gln Asp Tyr Ala Phe Ala Cys Glu Gln

65		70		75		80									
Met	Lys	Ser	Ile	Arg	Gln	Asp	Leu	Thr	Val	Gln	Gly	Ile	Arg	Thr	Glu
			85						90					95	
Phe	Thr	Val	Glu	Val	Tyr	Glu	Thr	His	Ala	Arg	Ile	Ala	Leu	Glu	Lys
		100						105					110		
Gly	Asp	His	Glu	Glu	Phe	Asn	Gln	Cys	Gln	Thr	Gln	Leu	Lys	Ser	Leu
		115					120					125			
Tyr	Ala	Glu	Asn	Leu	Pro	Gly	Asn	Val	Gly	Glu	Phe	Thr	Ala	Tyr	Arg
	130					135					140				
Ile	Leu	Tyr	Tyr	Ile	Phe	Thr	Lys	Asn	Ser	Gly	Asp	Ile	Thr	Thr	Glu
	145				150					155				160	
Leu	Ala	Tyr	Leu	Thr	Arg	Glu	Leu	Lys	Ala	Asp	Pro	Cys	Val	Ala	His
			165					170						175	
Ala	Leu	Ala	Leu	Arg	Thr	Ala	Trp	Ala	Leu	Gly	Asn	Tyr	His	Arg	Phe
		180						185					190		
Phe	Arg	Leu	Tyr	Cys	His	Ala	Pro	Cys	Met	Ser	Gly	Tyr	Leu	Val	Asp
	195						200					205			
Lys	Phe	Ala	Asp	Arg	Glu	Arg	Lys	Val	Ala	Leu	Lys	Ala	Met	Ile	Lys
	210					215					220				
Thr	Tyr	Val	Val	Pro	Ser	Ser	Leu	Leu	Pro	Leu	Leu	Phe	Pro	Ser	Phe
225					230					235				240	
Arg	Leu	Ala	Pro	Pro	Leu	Arg	Pro	Ala	Pro	Gly	Arg	Arg	Pro	Pro	Pro
			245						250					255	
Ala	Pro	Asn	Pro	Cys	Pro	Gly	Pro	Cys	Phe	Pro	Ile	Ile	Phe	Leu	His
		260						265					270		
Ser	Ala	Leu	Pro	Ser	Pro	Val	Pro	Leu	Ala	Leu	Leu	Val	Gly	His	Leu
		275					280						285		
Cys	Val	Pro	Gly	His	Ser	Ser	Pro	Ser	Pro	His	Cys	Ser	Gln	Leu	Thr
	290					295					300				
Ala	Ser	Gly	Ala	Ser	Ser	Pro	Pro	His	Leu	Cys	Val	Ser	Ser	Ser	Cys
305				310						315				320	
Ser	Leu	Leu	Pro	Gly	Pro	Pro	Ser	Ser	Leu	Leu	Ala	Leu	Gly	Phe	Leu
			325						330					335	
Arg	Thr	Leu	Arg	Ser	Leu	Leu	Ser	Gln	Leu	Val	Ala	Val	Leu	Pro	Pro
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&lt;210&gt; 4253

&lt;211&gt; 1287

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4253

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120

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180

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240

gacgccttgg gcggttccgc ggccctgtg cgcttcacc ttcaccaga aggacttctc

300

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360

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 600  
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 660  
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 720  
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 960  
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 1020  
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 1080  
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 1140  
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 1200  
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 1287

&lt;210&gt; 4254

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4254

Met	Val	Ser	Leu	Trp	Val	Glu	Gly	Thr	Phe	Pro	Pro	Pro	Gly	Phe	Gly
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Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
			20					25					30		
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
			35					40					45		
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
			50				55				60				
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70					75				80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
				85					90					95	
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
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Asp Gly

<210> 4255  
<211> 2205  
<212> DNA  
<213> Homo sapiens

<400> 4255  
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120  
aacaccaat ggcgtcctca gaatttatctc tgggtccctc atgggacaag cattggatcc  
180  
cactaggaaa caatggatc tccatgcagt agctaattcca gggttgattt ctttgactgg  
240  
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300  
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360  
~~cagatacttc taaaaagttc tgatggacct attacctgtc tgtaaccaag atgggtggcaa~~  
420  
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&lt;210&gt; 4256

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4256

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			20					25				30			
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
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Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
	50				55				60						
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65				70					75				80		
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
			85					90				95			
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
		100					105					110			
Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
		115				120					125				
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
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His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

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His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His
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Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr
             180             185             190
Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr
             195             200             205
Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile
             210             215             220
Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser
225             230             235             240
Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys
             245             250             255
His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu
             260             265             270
Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn
             275             280             285
Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp
             290             295             300
Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser
305             310             315             320
Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp
             325             330             335
Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys
             340             345             350
Ala Pro Gln Lys Glu Cys Phe Gly Gly Ile Val Gly Ala Lys Ser Pro
             355             360             365
Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys
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```

&lt;210&gt; 4257

&lt;211&gt; 1541

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4257

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540

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<210> 4258
<211> 314
<212> PRT
<213> Homo sapiens
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			20					25					30		
Glu	Asp	Leu	Ala	Pro	Phe	Ser	Leu	Arg	Lys	Arg	Trp	Glu	Ser	Glu	Pro
		35					40					45			
His	Pro	Tyr	Val	Phe	Phe	Asn	Asp	Asp	His	Thr	Thr	Met	Thr	Phe	Ile
	50					55					60				
Gly	Phe	His	Leu	Gln	Pro	Asn	Ile	Asn	Gly	Ser	Val	Asp	Ala	Ile	Ser
65					70					75					80
His	Leu	Thr	Gly	Lys	Val	Ile	Lys	Arg	Asp	Val	Met	Thr	Arg	Asp	Leu
				85					90					95	
Tyr	Gln	Gly	Leu	Leu	Leu	Gln	Arg	Val	Pro	Phe	Asn	Val	Asp	Phe	Asp

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<211> 377
<212> DNA
<213> Homo sapiens
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240
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<210> 4260
<211> 125
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 4260

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 20 25 30  
 Glu Gln Lys Cys Val Lys Cys Lys Glu Ala Gln Pro Val Val Val Ile  
 35 40 45  
 Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val  
 50 55 60  
 His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly  
 65 70 75 80  
 Glu Lys Val Leu Leu Ala Trp Ser Gly Gly Pro Ser Ser Ser Ser Met  
 85 90 95  
 Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser Ala Lys Arg Leu  
 100 105 110  
 Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly Ala  
 115 120 125

&lt;210&gt; 4261

&lt;211&gt; 592

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4261

acgcgttact cctaccaggt tgtagcatgc atctttttga gagagcagct gggatcgagt  
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 atactcttga cttaaataatg tttgtttata aagacaaatg gagaaatcaa tttttttccc  
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 592

&lt;210&gt; 4262

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4262

Ile Leu Arg Ser Thr Leu Val Asn Lys Glu Pro Asp Ser Met Leu Ala  
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 His Met Phe Lys Asp Lys Gly Val Trp Gly Asn Lys Gln Asp His Arg

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Gly Ala Phe Leu Ile Asp Arg Ser Pro Glu Tyr Phe Glu Pro Ile Leu
      35      40      45
Asn Tyr Leu Arg His Gly Gln Leu Ile Val Asn Asp Gly Ile Asn Leu
      50      55      60
Leu Gly Val Leu Glu Glu Ala Arg Phe Phe Gly Ile Asp Ser Leu Ile
      65      70      75      80
Glu His Leu Glu Val Ala Ile Lys Asn Ser Gln Pro Pro Glu Asp His
      85      90      95
Ser Pro Ile Ser Arg Lys Glu Phe Val Arg Phe Leu Leu Ala Thr Pro
      100      105      110
Thr Lys Ser Glu Leu Arg Cys Gln Gly Leu Asn Phe Ser Gly Ala Asp
      115      120      125
Leu Ser Arg Leu Asp Leu Arg Tyr Ile Asn Phe Lys Met Ala Asn Leu
      130      135      140
Ser Arg Cys Asn Leu Ala His Ala Asn Leu Cys Cys
      145      150      155

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&lt;210&gt; 4263

&lt;211&gt; 7710

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4263

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<211> 797

<212> PRT

<213> Homo sapiens

<400> 4264

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Met	Gln	Lys	Phe	Leu	Gly	Ser	Tyr	Phe	Ile	Thr	Trp	Asp	Glu	Asp	Met
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Phe	Asp	Glu	Glu	Thr	Gly	Glu	Gly	Pro	Leu	Val	Asn	Thr	Ser	Asp	Leu
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Asn	Glu	Glu	Leu	Gly	Gln	Val	Glu	Tyr	Ile	Phe	Thr	Asp	Lys	Thr	Gly
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Thr	Leu	Thr	Glu	Asn	Asn	Met	Glu	Phe	Lys	Glu	Cys	Cys	Ile	Glu	Gly
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His	Val	Tyr	Val	Pro	His	Val	Ile	Cys	Asn	Gly	Gln	Val	Leu	Pro	Glu
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Ser	Ser	Gly	Ile	Asp	Met	Ile	Asp	Ser	Ser	Pro	Ser	Val	Asn	Gly	Arg
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Glu	Arg	Glu	Glu	Leu	Phe	Phe	Arg	Ala	Leu	Cys	Leu	Cys	His	Thr	Val
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Gln	Val	Lys	Asp	Asp	Asp	Ser	Val	Asp	Gly	Pro	Arg	Lys	Ser	Pro	Asp
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Gly	Gly	Lys	Ser	Cys	Val	Tyr	Ile	Ser	Ser	Ser	Pro	Asp	Glu	Val	Ala
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Leu	Val	Glu	Gly	Val	Gln	Arg	Leu	Gly	Phe	Thr	Tyr	Leu	Arg	Leu	Lys
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Asp	Asn	Tyr	Met	Glu	Ile	Leu	Asn	Arg	Glu	Asn	His	Ile	Glu	Arg	Phe
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Glu	Leu	Leu	Glu	Ile	Leu	Ser	Phe	Asp	Ser	Val	Arg	Arg	Arg	Met	Ser
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Val	Ile	Val	Lys	Ser	Ala	Thr	Gly	Glu	Ile	Tyr	Leu	Phe	Cys	Lys	Gly
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Ala	Asp	Ser	Ser	Ile	Phe	Pro	Arg	Val	Ile	Glu	Gly	Lys	Val	Asp	Gln
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Ile	Arg	Ala	Arg	Val	Glu	Arg	Asn	Ala	Val	Glu	Gly	Leu	Arg	Thr	Leu
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Arg Asn Thr Gln Leu Leu Glu Leu Thr Thr Lys Arg Ile Glu Glu Gln		
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Ser Leu His Asp Val Leu Phe Glu Leu Ser Lys Thr Val Leu Arg His		
385	390	395
Ser Gly Ser Leu Thr Arg Asp Asn Leu Ser Gly Leu Ser Ala Asp Met		
405	410	415
Gln Asp Tyr Gly Leu Ile Ile Asp Gly Ala Ala Leu Ser Leu Ile Met		
420	425	430
Lys Pro Arg Glu Asp Gly Ser Ser Gly Asn Tyr Arg Glu Leu Phe Leu		
435	440	445
Glu Ile Cys Arg Ser Cys Ser Ala Val Leu Cys Cys Arg Met Ala Pro		
450	455	460
Leu Gln Lys Ala Gln Ile Val Lys Leu Ile Lys Phe Ser Lys Glu His		
465	470	475
Pro Ile Thr Leu Ala Ile Gly Asp Gly Ala Asn Asp Val Ser Met Ile		
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Leu Glu Ala His Val Gly Ile Gly Val Ile Gly Lys Glu Gly Arg Gln		
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515	520	525
Lys Met Leu Leu Val His Gly His Phe Tyr Tyr Ile Arg Ile Ser Glu		
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Leu Val Gln Tyr Phe Phe Tyr Lys Asn Val Cys Phe Ile Phe Pro Gln		
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Phe Leu Tyr Gln Phe Phe Cys Gly Phe Ser Gln Gln Thr Val His Asp		
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Arg Asp Pro Thr Leu Tyr Arg Asp Val Ala Lys Asn Ala Leu Leu Arg		
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Trp Arg Val Phe Ile Tyr Trp Thr Leu Leu Gly Leu Phe Asp Ala Leu		
625	630	635
Val Phe Phe Phe Gly Ala Tyr Phe Val Phe Glu Asn Thr Thr Val Thr		
645	650	655
Ser Asn Gly Gln Ile Phe Gly Asn Trp Thr Phe Gly Thr Leu Val Phe		
660	665	670
Thr Val Met Val Phe Thr Val Thr Leu Lys Leu Ala Leu Asp Thr His		
675	680	685
Tyr Trp Thr Trp Ile Asn His Phe Val Ile Trp Gly Ser Leu Leu Phe		
690	695	700
Tyr Val Val Phe Ser Leu Leu Trp Gly Gly Val Ile Trp Pro Phe Leu		

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Asn	Tyr	Gln	Arg	Met	Tyr	Tyr	Val	Phe	Ile	Gln	Met	Leu	Ser	Ser	Gly
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Pro	Ala	Trp	Leu	Ala	Ile	Val	Leu	Leu	Val	Thr	Ile	Ser	Leu	Leu	Pro
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Asp	Val	Leu	Lys	Lys	Val	Leu	Cys	Arg	Gln	Leu	Trp	Pro	Thr	Ala	Thr
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Glu	Arg	Val	Gln	Thr	Lys	Ser	Gln	Cys	Leu	Ser	Val	Glu	Gln	Ser	Thr
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&lt;210&gt; 4265

&lt;211&gt; 2422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4265

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&lt;210&gt; 4266

&lt;211&gt; 613

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4266

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Thr Gln Asn Gly Arg Leu Thr Asp Phe Leu Asp Cys Val Ile Ile Ser			
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His Phe His Leu Asp His Cys Gly Ala Leu Pro Tyr Phe Ser Glu Met			
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Val Gly Tyr Asp Gly Pro Ile Tyr Met Thr His Pro Thr Gln Ala Ile			
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Cys Pro Ile Leu Leu Glu Asp Tyr Arg Lys Ile Ala Val Asp Lys Lys			
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Gly Glu Ala Asn Phe Phe Thr Ser Gln Met Ile Lys Asp Cys Met Lys			
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Lys Val Val Ala Val His Leu His Gln Thr Val Gln Val Asp Asp Glu			
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Leu Glu Ile Lys Ala Tyr Tyr Ala Gly His Val Leu Gly Ala Ala Met			
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Phe Gln Ile Lys Val Gly Ser Glu Ser Val Val Tyr Thr Gly Asp Tyr			
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195	200	205	
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      500              505              510
Lys Glu Leu Gly Leu Ala Glu His Gln Leu Arg Phe Thr Cys Arg Val
      515              520              525
His Leu His Asp Thr Arg Lys Glu Gln Glu Thr Ala Leu Arg Val Tyr
      530              535              540
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545              550              555              560
Asp Gly Ser Val Thr Val Glu Ser Val Leu Leu Gln Ala Ala Pro
      565              570              575
Ser Glu Asp Pro Gly Thr Lys Val Leu Leu Val Ser Trp Thr Tyr Gln
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Pro Gln Ala Pro Ser
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 720



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&lt;210&gt; 4268

<211> 210  
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 <213> Homo sapiens

<400> 4268

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<400> 4269

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<211> 1084

<212> PRT

<213> Homo sapiens

<400> 4270

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Gly Val Glu Gly Lys Leu Gly Asn Gly Ser Gly Ala Gly Gly Ile Leu
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Asp Leu Leu Lys Ala Ser Arg Gln Val Gly Gly Pro Asp Tyr Ala Ala
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Leu Thr Glu Ala Pro Ala Ser Pro Ser Thr Gln Glu Ala Ile Gln Gly
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&lt;210&gt; 4271

&lt;211&gt; 588



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&lt;213&gt; Homo sapiens

&lt;400&gt; 4271

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588

&lt;210&gt; 4272

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4272

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Asn Asn Phe Ser Glu Leu Phe His Leu Leu Ser Ser Arg Asn Cys Lys

35

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Thr Arg Asn Leu Val Met Lys Leu Leu Leu Asn Met Ser Glu Asn Pro

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55

60

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70

75

80

Leu Ile Phe Asn His Lys Glu Ala Lys Ala Asn Leu Val Ser Gly Val

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90

95

Ala Ile Phe Ile Asn Ile Lys Glu His Ile Arg Lys Gly Ser Ile Val

100

105

110

Val Asn Lys Tyr Gly His Thr Thr Asn Lys Ile Gly Phe Cys Leu Phe

115

120

125

Leu Val Lys Asp Glu Phe

130

&lt;210&gt; 4273

&lt;211&gt; 2081

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 1980  
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 2081

<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

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			20					25					30		
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
		35					40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
	50					55				60					
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu
65					70				75				80		
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100					105					110		
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
		115					120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
	130					135					140				
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145				150					155					160	
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170					175		
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
		180					185						190		
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
	195					200						205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
	210					215					220				
Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

225

230

235

&lt;210&gt; 4275

&lt;211&gt; 874

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4275

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120

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180

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240

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300

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360

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420

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480

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660

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874

&lt;210&gt; 4276

&lt;211&gt; 264

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4276

Met Gln Val Ala Leu Gly Ala His Leu Arg Asp Ala Arg Arg Gly Gln  
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Arg Leu Arg Ser Gly Ala His Val Val Val Thr Gly Pro Pro Asn Ala  
20 25 30

Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile  
35 40 45

Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val  
50 55 60

Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

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65          70          75          80
Glu Gly Val Gly Pro Val Glu Gln Glu Gly Val Arg Arg Ala Arg Glu
      85          90          95
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp
      100          105          110
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser
      115          120          125
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Leu Val
      130          135          140
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro
145          150          155          160
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu
      165          170          175
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly
      180          185          190
Asp Pro Ser Thr Asp Pro Pro Leu Leu Thr Arg Ala Arg His Gln His
      195          200          205
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys
      210          215          220
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu
225          230          235          240
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Glu Ile Leu Asp Ile Ile
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Phe Gln Asp Phe Cys Val Gly Lys
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<210> 4277  
 <211> 1070  
 <212> DNA  
 <213> Homo sapiens

<400> 4277  
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 300  
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 360  
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 420  
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 480  
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 540  
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 780  
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 1070

&lt;210&gt; 4278

&lt;211&gt; 253

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4278

Met	Thr	Ala	Asp	Lys	Asp	Lys	Asp	Lys	Asp	Lys	Glu	Lys	Asp	Arg	Asp
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			20					25						30	
Glu	Asn	Ser	Arg	Pro	Arg	Arg	Ser	Cys	Thr	Leu	Glu	Gly	Gly	Ala	Lys
			35					40						45	
Asn	Tyr	Ala	Glu	Ser	Asp	His	Ser	Glu	Asp	Glu	Asp	Asn	Asp	Asn	Asn
			50					55						60	
Ser	Ala	Thr	Ala	Glu	Glu	Ser	Thr	Lys	Lys	Asn	Lys	Lys	Lys	Pro	Pro
65						70				75					80
Lys	Lys	Lys	Ser	Arg	Tyr	Glu	Arg	Thr	Asp	Thr	Gly	Glu	Ile	Thr	Ser
				85						90					95
Tyr	Ile	Thr	Glu	Asp	Asp	Val	Val	Tyr	Arg	Pro	Gly	Asp	Cys	Val	Tyr
			100							105					110
Ile	Glu	Ser	Arg	Arg	Pro	Asn	Thr	Pro	Tyr	Phe	Ile	Cys	Ser	Ile	Gln
			115					120						125	
Asp	Phe	Lys	Leu	Val	His	Asn	Ser	Gln	Ala	Cys	Cys	Arg	Ser	Pro	Thr
			130					135						140	
Pro	Ala	Leu	Cys	Asp	Pro	Pro	Ala	Cys	Ser	Leu	Pro	Val	Ala	Ser	Gln
145							150							160	
Pro	Pro	Gln	His	Leu	Ser	Glu	Ala	Gly	Arg	Gly	Pro	Val	Gly	Ser	Lys
				165						170				175	
Arg	Asp	His	Leu	Leu	Met	Asn	Val	Lys	Trp	Tyr	Tyr	Arg	Gln	Ser	Glu
			180							185				190	
Val	Pro	Asp	Ser	Val	Tyr	Gln	His	Leu	Val	Gln	Asp	Arg	His	Asn	Glu
			195							200				205	
Asn	Asp	Ser	Gly	Arg	Glu	Leu	Val	Ile	Thr	Asp	Pro	Val	Ile	Lys	Asn
			210					215						220	
Arg	Glu	Leu	Phe	Ile	Ser	Asp	Tyr	Val	Asp	Thr	Tyr	His	Ala	Ala	Ala
225						230								240	
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<211> 1963  
<212> DNA  
<213> Homo sapiens

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 1860  
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 1920  
 ccacagttag cattaaatta ttattccata caaaaaaaaa aaa  
 1963

&lt;210&gt; 4280

&lt;211&gt; 575

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4280

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Met	Met	Tyr	Ser	Leu	Ser	Val	His	Gln	Gln	Leu	Gly	Lys	Met	Val	Gly
			20					25					30		
Val	Ser	Asp	Asp	Val	Asn	Glu	Tyr	Ala	Met	Ala	Leu	Arg	Asp	Thr	Glu
		35					40					45			
Asp	Lys	Leu	Arg	Arg	Cys	Pro	Lys	Arg	Arg	Lys	Asp	Ile	Leu	Ala	Glu
	50					55					60				
Leu	Thr	Lys	Ser	Gln	Lys	Val	Phe	Ser	Glu	Lys	Leu	Asp	His	Leu	Ser
65					70					75				80	
Arg	Arg	Leu	Ala	Trp	Val	His	Ala	Thr	Val	Tyr	Ser	Gln	Glu	Lys	Met
			85					90					95		
Leu	Asp	Ile	Tyr	Trp	Leu	Leu	Arg	Val	Cys	Leu	Arg	Thr	Ile	Glu	His
		100					105					110			
Gly	Asp	Arg	Thr	Gly	Ser	Leu	Phe	Ala	Phe	Met	Pro	Glu	Phe	Tyr	Leu
		115				120					125				
Ser	Val	Ala	Ile	Asn	Ser	Tyr	Ser	Ala	Leu	Lys	Asn	Tyr	Phe	Gly	Pro
		130				135					140				
Val	His	Ser	Met	Glu	Glu	Leu	Pro	Gly	Tyr	Glu	Glu	Thr	Leu	Thr	Arg
145				150						155				160	
Leu	Ala	Ala	Ile	Leu	Ala	Lys	His	Phe	Ala	Asp	Ala	Arg	Ile	Val	Gly
			165					170					175		
Thr	Asp	Ile	Arg	Asp	Ser	Leu	Met	Gln	Ala	Leu	Ala	Ser	Tyr	Val	Cys
		180					185					190			
Tyr	Pro	His	Ser	Leu	Arg	Ala	Val	Glu	Arg	Ile	Pro	Glu	Glu	Gln	Arg
		195				200						205			
Ile	Ala	Met	Val	Arg	Asn	Leu	Leu	Ala	Pro	Tyr	Glu	Gln	Arg	Pro	Trp
	210				215						220				
Ala	Gln	Thr	Asn	Trp	Ile	Leu	Val	Arg	Leu	Trp	Arg	Gly	Cys	Gly	Phe
225				230						235				240	
Gly	Tyr	Arg	Tyr	Thr	Arg	Leu	Pro	His	Leu	Leu	Lys	Thr	Lys	Leu	Glu



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Asp Ala Asn Leu Pro Ser Leu Gln Lys Pro Cys Pro Ser Thr Leu Leu
                260                265                270
Gln Gln His Met Ala Asp Leu Leu Gln Gln Gly Pro Asp Val Ala Pro
                275                280                285
Ser Phe Leu Asn Ser Val Leu Asn Gln Leu Asn Trp Ala Phe Ser Glu
                290                295                300
Phe Ile Gly Met Ile Gln Glu Ile Gln Gln Ala Ala Glu Arg Leu Glu
305                310                315                320
Arg Asn Phe Val Asp Ser Arg Gln Leu Lys Val Cys Ala Thr Cys Phe
                325                330                335
Asp Leu Ser Val Ser Leu Leu Arg Val Leu Glu Met Thr Ile Thr Leu
                340                345                350
Val Pro Glu Ile Phe Leu Asp Trp Thr Arg Pro Thr Ser Glu Met Leu
                355                360                365
Leu Arg Arg Leu Ala Gln Leu Leu Asn Gln Val Leu Asn Arg Val Thr
370                375                380
Ala Glu Arg Asn Leu Phe Asp Arg Val Val Thr Leu Arg Leu Pro Gly
385                390                395                400
Leu Glu Ser Val Asp His Tyr Pro Ile Leu Val Ala Val Thr Gly Ile
                405                410                415
Leu Val Gln Leu Leu Val Arg Gly Pro Ala Ser Glu Arg Glu Gln Ala
                420                425                430
Thr Ser Val Leu Leu Ala Asp Pro Cys Phe Gln Leu Arg Ser Ile Cys
                435                440                445
Tyr Leu Leu Gly Gln Pro Glu Pro Pro Ala Pro Gly Thr Ala Leu Pro
450                455                460
Ala Pro Asp Arg Lys Arg Phe Ser Leu Gln Ser Tyr Ala Asp Tyr Ile
465                470                475                480
Ser Ala Asp Glu Leu Ala Gln Val Glu Gln Met Leu Ala His Leu Thr
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Ser Ala Ser Ala Gln Ala Ala Ala Ala Ser Leu Pro Thr Ser Glu Glu
500                505                510
Asp Leu Cys Pro Ile Cys Tyr Ala His Pro Ile Ser Ala Val Phe Gln
515                520                525
Pro Cys Gly His Lys Ser Cys Lys Ala Cys Ile Asn Gln His Leu Met
530                535                540
Asn Asn Lys Asp Cys Phe Phe Cys Lys Thr Thr Ile Val Ser Val Glu
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Asp Trp Glu Lys Gly Ala Asn Thr Ser Thr Thr Ser Ser Ala Ala
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&lt;210&gt; 4281

&lt;211&gt; 507

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4281

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gctgactctg agaggcagtg ggcttccgcg cagcacctcc cccatcacca ttgtagggc  
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 300  
 tcaggcatgg atgcagggtg aaatgagaga ggatcagtga ggcattcat gtcttttgag  
 360  
 tgggtctacag atgagtgggc tccagtctca aatgaggaga acaaataagg aagtaggagc  
 420  
 tcagggttct tgtgtgtctc ataggcagct gcctatccct gggatgata gctccctggc  
 480  
 acacccattc ccaagggcac aggatcc  
 507

<210> 4282  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 4282  
 Met Asn Ala Leu Thr Asp Pro Leu Ser Phe Pro Pro Ala Ser Met Pro  
 1 5 10 15  
 Asp Leu Leu Lys Cys Leu Trp Leu Pro Ala Ser Gln Pro Ala Pro-Pro  
 20 25 30  
 Leu Ile Thr Met Gly Gly Val Lys Cys Gln Val Asp Met Arg Gly Cys  
 35 40 45  
 Leu Leu Thr Ser Gly Leu Ile Asn Gln Pro Tyr Lys Cys Asp Arg Gly  
 50 55 60  
 Arg Cys Trp Arg Glu Ala His Cys Leu Ser Glu Ser Ala Gln Arg Thr  
 65 70 75 80  
 Glu Ser Gly Asp Ser Trp Gln Lys Arg Gly Gly Leu Arg Leu Trp Gly  
 85 90 95  
 Ile Trp Pro Ile Gly Gln Leu Trp Gly Ser  
 100 105

<210> 4283  
 <211> 315  
 <212> DNA  
 <213> Homo sapiens

<400> 4283  
 gaattctcaa ccagaacagc ccagcaggaa aggagccggc atgggggtgcc cctctgcagc  
 60  
 cgaccgtttt cctagaaggc ctaaccgctc aaacgggcag gggagggggg cgggcggccc  
 120  
 gggagaaacc gattccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt  
 180  
 ccagctgcaa aaacctccc gaaaacccaa gcttgctcgg cacaacttcg gtctctccag  
 240  
 cctcattcct gcccgactc cgccaaactg ctgcacctgc ccagcgagc ggatgcagcg  
 300  
 ctcccgggcc nacgg  
 315

<210> 4284

<211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 4284  
 Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg  
 1 5 10 15  
 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser  
 20 25 30  
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln  
 35 40 45  
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly  
 50 55 60  
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys  
 65 70 75 80  
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa  
 85 90

<210> 4285  
 <211> 591  
 <212> DNA  
 <213> Homo sapiens

<400> 4285  
 nagatctcag agaacttggg gaacattcag aaaatgcaga aaacgcagggt gaaatgccgc  
 60  
 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa  
 120  
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat  
 180  
 atatggtgat gcccagcctg cagtctgacc cctgaccctc ctctgaacct gttcccccaa  
 240  
 cgggatctgg cagtgaccac cagaacctgg ageccacctg agtccagact tccctcaccc  
 300  
 cctaggactc accccaccac ggcccccaac cttagctgta ctgtgtgcta caccctgagc  
 360  
 agtgtggagt ctcccagcgc cccagctcc ttgtcttctt gcagggtctgc tgtgcacgtg  
 420  
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggctctgagc  
 480  
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact  
 540  
 ccgactgtga ccaggacctc tcccagccac ctttcagcaa gagcggccgc a  
 591

<210> 4286  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 4286  
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro  
 1 5 10 15  
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

				20					25					30			
Arg	Leu	Pro	Ser	Pro	Pro	Arg	Thr	His	Pro	Thr	Thr	Ala	Pro	Asn	Leu		
		35					40					45					
Ser	Cys	Thr	Ala	Val	Tyr	Thr	Leu	Ser	Ser	Val	Glu	Ser	Pro	Ser	Ala		
	50					55					60						
Pro	Ser	Ser	Leu	Ser	Ser	Cys	Arg	Ser	Ala	Val	His	Val	Leu	Gln	Asp		
65					70					75					80		
Ser	Ile	Asp	Ser	Leu	Thr	Leu	Cys	Ser	Gly	Ala	Cys	Pro	Lys	Ala	Ser		
				85					90					95			
Ser	Leu	Arg	Gly	His	Lys	Gly	Thr	Ser	Ala								
			100					105									

```
<210> 4287
<211> 868
<212> DNA
<213> Homo sapiens
```

<400> 4287  
cgagggcgcg actgcggggt tcctgggtgct gaggacggac gccattggag ttcccgagaa  
60  
ggctgagctc tcctctccct gggaccgcga gcatggctga ggaagcttc agcgtgcaat  
120  
cggaagacta cagtgttgaa gacatggatg agggtagcga cgaagtcggg gaggaagaga  
180  
tggttgaagg caacgactat gaagaattcg gtgcgtttgg tggctatggc accctcacca  
240  
gctttgacat ccatatcttc agagccttcg gaagcttggg tccaggcctt cgcattctat  
300  
cgaatgagcc ctgggaactg gaaaaccnct gtgctggccc agaccctggt ggaggcattg  
360  
cagctggatc cggaaacact tgccaatgag acggccgccc gtgctgccaa cgtagcccg  
420  
ccgcgcgcct ccaaccgtgc ggtcggggcc gctgccgcg ctgcccgta cgccttcagt  
480  
caggtggctc ctagccacg ggtggccacg ccgcaggtct caggagagga taccagccc  
540  
acgacctacg ccgcgaggc tcagggggcc acccctgagc cacccttgc ttctccgag  
600  
acctcccaga tgttagtcac cagtaagatg gctgccccg aggtccggc aacctccga  
660  
cagtcccaga caggctcccc gggccaggag gctgctactg agggccctag tagcgctgt  
720  
gcattctctc aggtccgtg tgccaggag gtggacgcca accggcccag cacagccttc  
780  
ctgggccaga atgatgtctt cgatttcaact cagccggcag tgtcagtggc atggcttccc  
840  
gcgcccaga gacctgcca gccaaag  
868

```
<210> 4288
<211> 240
<212> PRT
<213> Homo sapiens
```

&lt;400&gt; 4288

```

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1           5           10           15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
      20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
      35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
      50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
      65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ala Ser Asn
      85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
      100          105          110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
      115          120          125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
      130          135          140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
      145          150          155          160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
      165          170          175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
      180          185          190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
      195          200          205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
      210          215          220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
      225          230          235          240

```

&lt;210&gt; 4289

&lt;211&gt; 353

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4289

```

ggatccctgg gaagatgact accctgcctg tgcgggatat gagggagaaa tatgggagcc
60
tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
120
caaagagcct tttgggaaca gttttcttat tgaacatac tcagtgttta aacctgcagg
180
tgtgggttgg tggcagcca catggcatcc ttgctctgt ccctgttctc ctgtctctgg
240
ctattcaggt tcccgtaggg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
300
gccctgttt ttggagtcct tgtgctgagg ccgctgtaac ttgcggagag ttg
353

```

&lt;210&gt; 4290

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4290

```

Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
100           105           110
Leu

```

&lt;210&gt; 4291

&lt;211&gt; 517

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4291

```

nnaaatttgc caagccaaga gttaccccag gaagattctc tcttacatgg ccaattttca
60
caagcagtca ctcccctagc ccattcatcac acagattatt caaagcccac cgatatctca
120
tggagagaca cactttctca gaagtttgga tcttcagatc acttggagaa actatttaag
180
atggatgaag caagtgcoca gctccttgct tataaggaaa aaggccattc tcagagttca
240
caattttcct ctgatcaaga aatagctcat ctgctgcttg aaaatgtgag tgcgctccca
300
gctacgggtg cagttgcttc tccacatacc acctcggcta ctccaaagcc cgccaccctt
360
ctaccaccca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
420
gtccacctg taaccactgt cactttctcag cctcccacga ccttcatttc tacagttttt
480
acacgggctg tggctacact ccaagcaatg gctacaa
517

```

&lt;210&gt; 4292

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4292

```

Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```

	20		25		30										
Tyr	Ser	Lys	Pro	Thr	Asp	Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys
	35		40		45										
Phe	Gly	Ser	Ser	Asp	His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala
	50		55		60										
Ser	Ala	Gln	Leu	Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser
65			70		75									80	
Gln	Phe	Ser	Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val
			85		90									95	
Ser	Ala	Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser
			100		105									110	
Ala	Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr
			115		120									125	
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro	Val
			130		135									140	
Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr	Val	Phe
145					150					155					160
Thr	Arg	Ala	Val	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr				
			165						170						

&lt;210&gt; 4293

&lt;211&gt; 547

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4293

gccggcgccc ccggcgcgga tgccctgctct gtgcctgtat ctgagatcat cgccgttgag  
 60  
 gaaacagacg ttcacgggaa acatcaaggc agtggaaaat ggcagaaaat ggaaaagcct  
 120  
 tacgctttta cagttcactg tgtaaagaga gcacgacggc accgctggaa gtgggcgcag  
 180  
 gtgactttct ggtgtccaga ggagcagctg tgtcacttgt ggctgcagac cctgcgggag  
 240  
 atgctggaga agctgacgtc cagaccaaag catttactgg tatttatcaa cccgtttgga  
 300  
 ggaaaaggac aaggcaagcg gatatatgaa agaaaagtgg caccactgtt caccttagcc  
 360  
 tccatcacca ctgacatcat cgttactgaa catgctaata aggccaagga gactctgtat  
 420  
 gagattaaca tagacaaata cgacggcatc gtctgtgtcg gcggagatgg tatgttcagc  
 480  
 gaggtgctgc acggtctgat tgggaggacg cagaggagcg ccgggggtcga ccagaaccac  
 540  
 ccccggg  
 547

&lt;210&gt; 4294

&lt;211&gt; 182

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4294

Ala Gly Ala Pro Gly Ala Asp Ala Cys Ser Val Pro Val Ser Glu Ile

```

1           5           10           15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
20           25           30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
35           40           45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
50           55           60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
65           70           75           80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
85           90           95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
100          105          110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
115          120          125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
130          135          140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
145          150          155          160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
165          170          175
Asp Gln Asn His Pro Arg
180

```

<210> 4295  
 <211> 431  
 <212> DNA  
 <213> Homo sapiens

<400> 4295  
 nntctagaaa atcactgtct ccttctaccc tgccatctct acaccagggt tacaacaag  
 60  
 agccactgc tggctccttg ttttgtaa at aagatttgtt ggactacagc tatgcccgta  
 120  
 catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca  
 180  
 gagaccccca ttgccacaa gcctaaaaca tttgccatcg agccctttaa gaaagagttt  
 240  
 gctggccgtg cgcgggtggc gtggctcccg cctgtaatcc cagcactttg gaaggctgag  
 300  
 gcaggcgggtg aggtctggag ttcgaaacca gcctggccag cgtggcgaaa cctgtctcc  
 360  
 ccctcccaga ttcacgtgat tatccacct cagcctcctg agtacctggg actataggcg  
 420  
 cgtgccaacc a  
 431

<210> 4296  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 4296  
 Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg



1	5	10	15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile			
	20	25	30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys			
	35	40	45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile			
	50	55	60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe			
65	70	75	80
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu			
	85	90	95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp			
	100	105	110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile			
	115	120	125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu			
130	135		

&lt;210&gt; 4297

&lt;211&gt; 1668

&lt;212&gt; -DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4297

```

nccatggact cggcctttgt gggatataaag gtcaaccaag tgtcagctgc agttggaaaa
60
gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaaag gaggacaatg ccatccttca tttcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttggca tctgtgccc ccagggtctt cctcatccac cacttctggt
360
tcctttcatc tggaaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
aatggcaaaa cagttcgtcc atcctctgtt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttcctt gaaactggag gatgacagtt tcccaactca caaaaggaag
600
gccaaagtat ccatcattag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaatccac aactgactca cacttcccca gacaggacca gttgcctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccag
780
aagctgtatc agtgcaatgg gatgcctgg aaagcctgga gtccccaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

```

acagagcaga aaggcacctg gaatgcggct gcccaagctt gcagggaaca atacctgggc  
 960  
 aaccttgtaa ctgtattctc caggcagcac atgcgggtggc tctgggacat tgggtgggaga  
 1020  
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcggc  
 1080  
 ggtgaacctg ttgccttcac caatgggaga agagggccct ctccacgctc caagcttgga  
 1140  
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc  
 1200  
 aaacctcata attatgtgtg ttccagaaaa ctctaaatat aacagaccct acagggggcc  
 1260  
 acctggagtt tgtcacctat ttattcacag gatctgtgaa tattgtcca tagaaaaaa  
 1320  
 attgttatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt  
 1380  
 aatagtgcc aagagattga taaataaata ttttttaca gataagatac aatttttga  
 1440  
 tctcaatacc ttttaaaata aatgccagca gtattaaaaa gtgtaagggt tgtttattcc  
 1500  
 agaagaacct cacccttacc ccattccaaa tctcaggag caccagtctc atagtccttg  
 1560  
 gatttttttt aaaaaaatt tttgggtccg ttacctctaa tgaatttatt ctgaaatatg  
 1620  
 tatcgtaggt gctcctacca ctttagtctg agtggaaagc caaaaaac  
 1668

<210> 4298  
 <211> 411  
 <212> PRT  
 <213> Homo sapiens

<400> 4298  
 Xaa Met Asp Ser Ala Phe Val Gly Ile Lys Val Asn Gln Val Ser Ala  
 1 5 10 15  
 Ala Val Gly Lys Asp Phe Thr Val Ile Pro Ser Lys Leu Ile Gln Phe  
 20 25 30  
 Asp Pro Gly Met Ser Thr Lys Met Trp Asn Ile Ala Ile Thr Tyr Asp  
 35 40 45  
 Gly Leu Glu Glu Asp Asp Glu Val Phe Glu Val Ile Leu Asn Ser Pro  
 50 55 60  
 Val Asn Ala Val Leu Gly Thr Lys Thr Lys Ala Ala Val Lys Ile Leu  
 65 70 75 80  
 Asp Ser Lys Gly Gly Gln Cys His Pro Ser Tyr Ser Ser Asn Gln Ser  
 85 90 95  
 Lys His Ser Thr Trp Glu Lys Gly Ile Trp His Leu Leu Pro Pro Gly  
 100 105 110  
 Ser Ser Ser Ser Thr Thr Ser Gly Ser Phe His Leu Glu Arg Arg Pro  
 115 120 125  
 Leu Pro Ser Ser Met Gln Leu Ala Val Ile Arg Gly Asp Thr Leu Arg  
 130 135 140  
 Gly Phe Asp Ser Thr Asp Leu Ser Gln Arg Lys Leu Arg Thr Arg Gly  
 145 150 155 160  
 Asn Gly Lys Thr Val Arg Pro Ser Ser Val Tyr Arg Asn Gly Thr Asp

```

      165      170      175
Ile Ile Tyr Asn Tyr His Gly Ile Val Ser Leu Lys Leu Glu Asp Asp
      180      185      190
Ser Phe Pro Thr His Lys Arg Lys Ala Lys Val Ser Ile Ile Ser Gln
      195      200      205
Pro Gln Lys Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val
      210      215      220
Glu Ser Thr Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser
      225      230      235      240
Phe Pro Lys Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu
      245      250      255
Glu Gly Ile Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala
      260      265      270
Trp Ser Pro Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly
      275      280      285
Trp His Gln His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys
      290      295      300
Gly Thr Trp Asn Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly
      305      310      315      320
Asn Leu Val Thr Val Phe Ser Arg Gln His Met Arg Trp Leu Trp Asp
      325      330      335
Ile Gly Gly Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His
      340      345      350
Ala Gly His Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn
      355      360      365
Gly Arg Arg Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val
      370      375      380
Leu Val Gln Arg Gln Gly Lys Trp Gln Thr Lys Asp Cys Arg Arg Ala
      385      390      395      400
Lys Pro His Asn Tyr Val Cys Ser Arg Lys Leu
      405      410

```

&lt;210&gt; 4299

&lt;211&gt; 988

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4299

```

nngcgaccgc tcttgctgaa aggtggctgg gagaggctct ggtcagagtc ggagtcagag
60
tcccaggagg ggagtggagg gctcaggcac tgggtgccctt gtggcctctt aggcctcagg
120
ccttgggaca ggcccccgag cacaaagtga ggctgtctat ggagttctgc agcacgtgca
180
cagcagacca tatatcactc agttccttct ggagggtcacc cttccagcag ccactggctc
240
cctgcggtat ctcttcagtc tccggacagg cggtgtgttc atgacctgac tgcttcatct
300
tggtcaggat tttgcggcat ttcacctgcg ttttctgcat tttctgaatg ttcaccaagt
360
tctctgagat ctcacacctc tgcgcttgga gcttctgata gatgaaggtc acctcctccc
420
gcaccagttc cagctcctcc cacaggaact tcttgctgtc ccggtatctc tgggccagca
480

```

gctgcaggca gcgagtgggtg cgggcccgt gcctctctc actgtcacgc aggggtcttct  
 540  
 ccagccctg aaggccttgg gtcagggccc catacagctc ctgccggccc tgetccatgc  
 600  
 cccacttggtg ctctctcttc tctccatggc ggctgtggg gctcagcacc tcttcaagct  
 660  
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 720  
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<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

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			20				25					30			
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
		35				40					45				
Ser	Ser	Trp	Ser	Gly	Phe	Cys	Gly	Ile	Ser	Pro	Ala	Phe	Ser	Ala	Phe
	50				55					60					
Ser	Glu	Cys	Ser	Pro	Ser	Ser	Leu	Arg	Ser	His	Pro	Pro	Ala	Leu	Gly
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Ala	Ser	Asp	Arg												

<210> 4301

<211> 2429

<212> DNA

<213> Homo sapiens

<400> 4301

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<210> 4302

<211> 717

<212> PRT

<213> Homo sapiens

<400> 4302

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Glu	Gly	Val	Gly	Gly	Gly	Ala	Ser	Ala	Leu	Thr	Ser	Gly	Ile	Ala	Ser
		35						40					45		
Ser	Pro	Asp	Tyr	Glu	Phe	Asn	Val	Trp	Thr	Arg	Pro	Asp	Cys	Ala	Glu
		50					55				60				
Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
		65				70				75				80	
Gly	Gly	Met	Pro	Gly	Lys	Leu	Ile	Lys	Ile	Asn	Ile	Met	Asn	Met	Asn
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Lys	Gln	Ser	Lys	Leu	Tyr	Ser	Gln	Gly	Met	Ala	Pro	Phe	Val	Arg	Thr
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Leu	Pro	Thr	Arg	Pro	Arg	Trp	Glu	Arg	Ile	Arg	Asp	Arg	Pro	Thr	Phe
		115					120				125				
Glu	Met	Thr	Glu	Thr	Gln	Phe	Val	Leu	Ser	Phe	Val	His	Arg	Phe	Val
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Glu	Gly	Arg	Gly	Ala	Thr	Thr	Phe	Phe	Ala	Phe	Cys	Tyr	Pro	Phe	Ser
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Tyr	Ser	Asp	Cys	Gln	Glu	Leu	Leu	Asn	Gln	Leu	Asp	Gln	Arg	Phe	Pro
			165					170					175		
Glu	Asn	His	Pro	Thr	His	Ser	Ser	Pro	Leu	Asp	Thr	Ile	Tyr	Tyr	His
		180						185					190		
Arg	Glu	Leu	Leu	Cys	Tyr	Ser	Leu	Asp	Gly	Leu	Arg	Val	Asp	Leu	Leu
		195					200					205			
Thr	Ile	Thr	Ser	Cys	His	Gly	Leu	Arg	Glu	Asp	Arg	Glu	Pro	Arg	Leu
		210				215					220				
Glu	Gln	Leu	Phe	Pro	Asp	Thr	Ser	Thr	Pro	Arg	Pro	Phe	Arg	Phe	Ala

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 Gly Lys Arg Ile Phe Phe Leu Ser Ser Arg Val His Pro Gly Glu Thr  
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 Pro Ser Ser Phe Val Phe Asn Gly Phe Leu Asp Phe Ile Leu Arg Pro  
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 Asp Asp Pro Arg Ala Gln Thr Leu Arg Arg Leu Phe Val Phe Lys Leu  
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 Ile Pro Met Leu Asn Pro Asp Gly Val Val Arg Gly His Tyr Arg Thr  
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 Asp Ser Arg Gly Val Asn Leu Asn Arg Gln Tyr Leu Lys Pro Asp Ala  
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 Val Leu His Pro Ala Ile Tyr Gly Ala Lys Ala Val Leu Leu Tyr His  
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 His Val His Ser Arg Leu Asn Ser Gln Ser Ser Ser Glu His Gln Pro  
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 Ser Ser Cys Leu Pro Pro Asp Ala Pro Val Ser Asp Leu Glu Lys Ala  
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 Asn Asn Leu Gln Asn Glu Ala Gln Cys Gly His Ser Ala Asp Arg His  
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 Asn Ala Glu Ala Trp Lys Gln Thr Glu Pro Ala Glu Gln Lys Leu Asn  
 385                                   390                      395                      400  
 Ser Val Trp Ile Met Pro Gln Gln Ser Ala Gly Leu Glu Glu Ser Ala  
                                  405                      410                      415  
 Pro Asp Thr Ile Pro Pro Lys Glu Ser Gly Val Ala Tyr Tyr Val Asp  
                                  420                      425                      430  
 Leu His Gly His Ala Ser Lys Arg Gly Cys Phe Met Tyr Gly Asn Ser  
                                  435                      440                      445  
 Phe Ser Asp Glu Ser Thr Gln Val Glu Asn Met Leu Tyr Pro Lys Leu  
                                  450                      455                      460  
 Ile Ser Leu Asn Ser Ala His Phe Asp Phe Gln Gly Cys Asn Phe Ser  
 465                                   470                      475                      480  
 Glu Lys Asn Met Tyr Ala Arg Asp Arg Arg Asp Gly Gln Ser Lys Glu  
                                  485                      490                      495  
 Gly Ser Gly Arg Val Ala Ile Tyr Lys Ala Ser Gly Ile Ile His Ser  
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 Tyr Thr Leu Glu Cys Asn Tyr Asn Thr Gly Arg Ser Val Asn Ser Ile  
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 Met Leu Lys His Val Arg Asn Ser Arg Gly Leu Ser Ser Thr Leu Asn  
                                  595                      600                      605  
 Val Gly Val Asn Lys Lys Arg Gly Leu Arg Thr Pro Pro Lys Ser His  
                                  610                      615                      620  
 Asn Gly Leu Pro Val Ser Cys Ser Glu Asn Thr Leu Ser Arg Ala Arg  
 625                                   630                      635                      640  
 Ser Phe Ser Thr Gly Thr Ser Ala Gly Gly Ser Ser Ser Ser Gln Gln  
                                  645                      650                      655  
 Asn Ser Pro Gln Met Lys Asn Ser Pro Ser Phe Pro Phe His Gly Ser

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Arg	Pro	Ala	Gly	Leu	Pro	Gly	Leu	Gly	Ser	Ser	Thr	Gln	Lys	Val	Thr
	675				680						685				
His	Arg	Val	Leu	Gly	Pro	Val	Arg	Gly	Lys	Pro	Val	Trp	Glu	Pro	Leu
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Gln	His	Val	Phe	Gly	Cys	Leu	Gly	His	Cys	Trp	Gly	Lys			
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&lt;210&gt; 4303

&lt;211&gt; 768

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4303

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768

&lt;210&gt; 4304

&lt;211&gt; 256

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4304

Thr	Arg	Ala	Ala	Arg	Glu	Leu	Asp	Asn	Leu	Gln	Tyr	Arg	Lys	Met	Lys
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Lys	Leu	Leu	Phe	Gln	Glu	Ala	His	Asn	Gly	Pro	Ala	Val	Glu	Ala	Gln
		20						25				30			
Glu	Glu	Glu	Glu	Glu	Gln	Asp	His	Gly	Val	Gly	Arg	Thr	Gly	Thr	Val
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Asn	Ser	Val	Gly	Ser	Asn	Gln	Ser	Ile	Pro	Ser	Met	Ser	Ile	Ser	Ala



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Ser Ser Gln Ser Ser Ser Val Asn Ser Leu Pro Asp Val Ser Asp Asp		
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Lys Ser Glu Leu Asp Met Met Glu Gly Asp His Thr Val Met Ser Asn		80
	85	90
Ser Ser Val Ile His Leu Lys Pro Glu Glu Asn Tyr Arg Glu Glu		95
	100	105
Gly Asp Pro Arg Thr Arg Ala Ser Asp Pro Gln Ser Pro Pro Gln Val		110
	115	120
Ser Arg His Lys Ser His Tyr Arg Asn Arg Glu His Phe Ala Thr Ile		125
	130	135
Arg Thr Ala Ser Leu Val Thr Arg Gln Met Gln Glu His Glu Gln Asp		140
	145	150
Ser Glu Leu Arg Glu Gln Met Ser Gly Tyr Lys Arg Met Arg Arg Gln		155
	160	165
His Gln Lys Gln Leu Met Thr Leu Glu Asn Lys Leu Lys Ala Glu Met		170
	175	180
Asp Glu His Arg Leu Arg Leu Asp Lys Asp Leu Glu Thr Gln Arg Asn		185
	190	195
Asn Phe Ala Ala Glu Met Glu Lys Leu Ile Lys Lys His Gln Ala Ala		200
	205	210
Met Glu Lys Glu Ala Lys Val Met Ser Asn Glu Glu Lys Lys Phe Gln		215
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Gln His Ile Gln Ala Gln Gln Lys Lys Glu Leu Asn Ser Phe Leu Glu		230
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 <212> DNA  
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 3400

&lt;210&gt; 4306

&lt;211&gt; 1052

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4306

Met	Ala	Gly	Met	Asp	Ser	Gly	Asn	Leu	Lys	Thr	Ala	Arg	Leu	Trp	Arg
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Asp	Ala	Ala	Leu	Arg	Ala	Arg	Lys	Leu	Arg	Ser	Asn	Leu	Arg	Gln	Leu
			20					25					30		
Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
			35				40					45			
Glu	Ser	Pro	Ala	Ser	Pro	Gln	Leu	Val	Leu	Pro	Ala	Asn	Leu	Gly	Asp
			50			55					60				
Ile	Glu	Ala	Leu	Asn	Leu	Gly	Asn	Asn	Gly	Leu	Glu	Glu	Val	Pro	Glu

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Gly Leu Gly Ser	Ala Leu Gly Ser	Leu Arg Val	Leu Val Leu Arg	Arg		
	85		90		95	
Asn Arg Phe Ala	Arg Leu Pro Pro	Ala Val Ala Glu	Leu Gly His His			
	100		105		110	
Leu Thr Glu Leu Asp	Val Ser His Asn Arg	Leu Thr Ala Leu Gly	Ala			
	115		120		125	
Glu Val Val Ser Ala	Leu Arg Glu Leu Arg	Lys Leu Asn Leu Ser	His			
	130		135		140	
Asn Gln Leu Pro Ala	Leu Pro Ala Gln Leu Gly	Ala Leu Ala His Leu				
	145		150		155	
Glu Glu Leu Asp Val	Ser Phe Asn Arg Leu Ala	His Leu Pro Asp Ser				
	165		170		175	
Leu Ser Cys Leu Ser	Arg Leu Arg Thr Leu Asp	Val Asp His Asn Gln				
	180		185		190	
Leu Thr Ala Phe Pro	Arg Gln Leu Gln Leu Val	Ala Leu Glu Glu				
	195		200		205	
Leu Asp Val Ser Ser	Asn Arg Leu Arg Gly Leu Pro	Glu Asp Ile Ser				
	210		215		220	
Ala Leu Arg Ala Leu	Lys Ile Leu Trp Leu Ser Gly	Ala Glu Leu Gly				
	225		230		235	
Thr Leu Pro Ala Gly	Phe Cys Glu Leu Ala Ser	Leu Glu Ser Leu Met				
	245		250		255	
Leu Asp Asn Asn Gly	Leu Gln Ala Leu Pro Ala Gln	Phe Ser Cys Leu				
	260		265		270	
Gln Arg Leu Lys Met	Leu Asn Leu Ser Ser Asn Leu	Phe Glu Glu Phe				
	275		280		285	
Pro Ala Ala Leu Leu	Pro Leu Ala Gly Leu Glu Glu	Leu Tyr Leu Ser				
	290		295		300	
Arg Asn Gln Leu Thr	Ser Val Pro Ser Leu Ile Ser	Gly Leu Gly Arg				
	305		310		315	
Leu Leu Thr Leu Trp	Leu Asp Asn Asn Arg Ile Arg	Tyr Leu Pro Asp				
	325		330		335	
Ser Ile Val Glu Leu	Thr Gly Leu Glu Leu Val Leu	Gln Gly Asn				
	340		345		350	
Gln Ile Ala Val Leu	Pro Asp His Phe Gly Gln Leu Ser	Arg Val Gly				
	355		360		365	
Leu Trp Lys Ile Lys	Asp Asn Pro Leu Ile Gln Pro	Pro Tyr Glu Val				
	370		375		380	
Cys Met Lys Gly Ile	Pro Tyr Ile Ala Ala Tyr Gln	Lys Glu Leu Ala				
	385		390		395	
His Ser Gln Pro Ala	Val Gln Pro Arg Leu Lys Leu Leu	Leu Met Gly				
	405		410		415	
His Lys Ala Ala Gly	Lys Thr Leu Leu Arg His Cys	Leu Thr Glu Glu				
	420		425		430	
Arg Val Glu Gly Cys	Pro Gly Gly Gly Asp Lys Glu	Lys Cys Tyr Pro				
	435		440		445	
Pro Ser Pro Pro Pro	Val Ser Lys Gly Ile Glu Val Thr	Ser Trp Thr				
	450		455		460	
Ala Asp Ala Ser Arg	Gly Leu Arg Phe Ile Val Tyr Asp	Leu Ala Gly				
	465		470		475	
Asp Glu Ser Tyr Glu	Val Ile Gln Pro Phe Phe Leu Ser	Pro Gly Ala				
	485		490		495	
Leu Tyr Val Leu Val	Val Asn Leu Ala Thr Tyr Glu	Pro Arg His Phe				

500	505	510
Pro Thr Thr Val Gly Ser Phe Leu His Arg Val Gly Ala Arg Val Pro		
515	520	525
Asn Ala Val Val Cys Ile Val Gly Thr His Ala Asp Leu Cys Gly Glu		
530	535	540
Arg Glu Leu Glu Glu Lys Cys Leu Asp Ile His Arg Gln Ile Ala Leu		
545	550	555
Gln Glu Lys His Asp Ala Glu Gly Leu Ser Arg Leu Ala Lys Val Val		
565	570	575
Asp Glu Ala Leu Ala Arg Asp Phe Glu Leu Arg Ser Ala Ser Pro His		
580	585	590
Ala Ala Tyr Tyr Gly Val Ser Asp Lys Asn Leu Arg Arg Arg Lys Ala		
595	600	605
His Phe Gln Tyr Leu Leu Asn His Arg Leu Gln Ile Leu Ser Pro Val		
610	615	620
Leu Pro Val Ser Cys Arg Asp Pro Arg His Leu Arg Arg Leu Arg Asp		
625	630	635
Lys Leu Leu Ser Val Ala Glu His Arg Glu Ile Phe Pro Asn Leu His		
645	650	655
Arg Val Leu Pro Arg Ser Trp Gln Val Leu Glu Glu Leu His Phe Gln		
660	665	670
Pro Pro Gln Ala Gln Arg Leu Trp Leu Ser Trp Trp Asp Ser Ala Arg		
675	680	685
Leu Gly Leu Gln Ala Gly Leu Thr Glu Asp Arg Leu Gln Ser Ala Leu		
690	695	700
Ser Tyr Leu His Glu Ser Gly Lys Leu Leu Tyr Phe Glu Asp Ser Pro		
705	710	715
Ala Leu Lys Glu His Val Phe His Asn Leu Thr Arg Leu Ile Asp Ile		
725	730	735
Leu Asn Val Phe Phe Gln Arg Asp Pro Ser Leu Leu Leu His Lys Leu		
740	745	750
Leu Leu Gly Thr Ser Gly Glu Gly Lys Ala Glu Gly Glu Ser Ser Pro		
755	760	765
Pro Met Ala Arg Ser Thr Pro Ser Gln Glu Leu Leu Arg Ala Thr Gln		
770	775	780
Leu His Gln Tyr Val Glu Gly Phe Leu Leu His Gly Leu Leu Pro Ala		
785	790	795
His Val Ile Arg Leu Leu Leu Lys Pro His Val Gln Ala Gln Gln Asp		
805	810	815
Leu Gln Leu Leu Glu Leu Leu Glu Lys Met Gly Leu Cys Tyr Cys		
820	825	830
Leu Asn Lys Pro Lys Gly Lys Pro Leu Asn Gly Ser Thr Ala Trp Tyr		
835	840	845
Lys Phe Pro Cys Tyr Val Gln Asn Glu Val Pro His Ala Glu Ala Trp		
850	855	860
Ile Asn Gly Thr Asn Leu Ala Gly Gln Ser Phe Val Ala Glu Gln Leu		
865	870	875
Gln Ile Glu Tyr Ser Phe Pro Phe Thr Phe Pro Pro Gly Leu Phe Ala		
885	890	895
Arg Tyr Ser Val Gln Ile Asn Ser His Val Val His Arg Ser Asp Gly		
900	905	910
Lys Phe Gln Ile Phe Ala Tyr Arg Gly Lys Val Pro Val Val Val Ser		
915	920	925
Tyr Arg Pro Ala Arg Gly Val Leu Gln Pro Asp Thr Leu Ser Ile Ala		

930	935	940
Ser His Ala Ser Leu Pro Asn Ile Trp Thr Ala Trp Gln Ala Ile Thr		
945	950	955
Pro Leu Val Glu Glu Leu Asn Val Leu Leu Gln Glu Trp Pro Gly Leu		960
	965	970
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser		975
	980	985
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro		990
	995	1000
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val		1005
	1010	1015
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys		1020
1025	1030	1035
Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln		1040
	1045	1050

&lt;210&gt; 4307

&lt;211&gt; 947

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4307

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 60  
 tgtgtgactg ccaggetcac ctgctctgga accggcctcg gtttgagag atcaatgacc  
 120  
 aggacagaac tgatcgatac gtccaggetc tgaggaccgt ctctctcctc ctggggcgagc  
 180  
 cgttcttcac taccagcctg ctgccgtggc acaacctcta cttctggtac gtgcgggacgc  
 240  
 tgtggaccag cacctggggc caggtgccat ggtgatgcc caggcagcct cgctgcacgc  
 300  
 tgtggttggt gagttcaggg tgtgcagggg acagcaagat gtgcctcttg ttcttgctgc  
 360  
 cacgcttccc tgtgtcctgc gggcggtgt ggtatgggct gctccttct cacaggancc  
 420  
 tgtggcggat ccggagccnc ctgtggtgac tgccaaggct tcgacgtgca catcatggat  
 480  
 gacatgatta aggtaggcag ggccacactc tgcatagtc ccccgacctg ctctgtatc  
 540  
 gcaggcctct cacagggtcc cagcttgggc agcacaggct cttctgttgg gggcagtgag  
 600  
 gtcagggtgt gccattttgt gtggttcaac atgagcattg cttggtacca gccctgttct  
 660  
 tggtccgtg ctgtcacctc gtgtcagaat ctccactggg cctgcacgtc ctgtcattgc  
 720  
 aactgcccc gccagtgcc acagcttctt ttctagtggg gctgacttcc cagaggccat  
 780  
 ctgggaacct tcttaggcag ccatttccat ggtgggggct ccattcccgg gaggggtacc  
 840  
 tgaggagatt cccacaggtt atttacatgg taggggttag caactgggcc tacgttctcc  
 900  
 agaaccatgg gctgtcctga cagcgccagt ggtccttggg ttcattga  
 947

<210> 4308  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

<400> 4308  
 Gly Pro Ser Leu Ser Ser Trp Ala Ser Arg Ser Ser Leu Pro Ala Cys  
 1 5 10 15  
 Cys Arg Gly Thr Thr Ser Thr Ser Gly Thr Cys Gly Arg Cys Gly Pro  
 20 25 30  
 Ala Pro Gly Ala Arg Cys His Gly Asp Ala Pro Gly Ser Leu Ala Ala  
 35 40 45  
 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala  
 50 55 60  
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly  
 65 70 75 80  
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa  
 85 90 95  
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile  
 100 105 110  
 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys  
 115 120 125  
 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser  
 130 135 140  
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met  
 145 150 155 160  
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu  
 165 170 175  
 Cys Gln Asn Leu His Trp Ala Cys Thr Ser Cys His Cys Asn Cys Pro  
 180 185 190  
 Cys Gln Cys Pro Gln Leu Leu Phe  
 195 200

<210> 4309  
 <211> 1928  
 <212> DNA  
 <213> Homo sapiens

<400> 4309  
 tttttttttg agttactggc catttgagggt atttattaat gaagattaaa catccaaagg  
 60  
 gcagtcctca atgctcattt ccatgatttt aagagttgat aactccatgt catgattatt  
 120  
 gtcgcctttg acactggaga actgaacaga ttgggagggt gatgtgttaa gaccacataa  
 180  
 tccatttgaa atctcaacct tttcagggtc actatcacct tcaatgacat tcacagaagt  
 240  
 ttcccgatct gttaaactgt ctgaaatact tggatgattt tcatccaaag ttgaagtttc  
 300  
 aagatttggt tcatcattca cctgttgaat tataaccctt tctgaatgct ttgatttata  
 360  
 aataggcatg aaaaattcag ttgggtgaagg gaatatctcg ttctcatcct ttgggtgccga  
 420

caataacata tccaaagcct ttgggtattg ttgaegtcc tgctgaattg ttacttcact  
480  
ttcatttttt aattcatttg gttctgaatt ccagccttt tcaaaatcaa atacattcaa  
540  
catatcaaca tcattttgct ttaccgagtt ttccctccgat gtgcagccta agtctacttt  
600  
caggacatgc agcaggtggc gcattttttc ctccctccaaa tgtttatttt gttttatatg  
660  
tcgctcgaac agtcgttcta aaaacctgtt tgaaaataaa ccaagtttca aaatttcac  
720  
tgttacatct tcaatgaaac tcagatacaa cagttcttct tcatcagagt agattttacg  
780  
agttgaaggg ggcttcaggg aatactgaca cattgccctt ggtgaggaat gctgaagagc  
840  
atcatcetta atctcatccc atgttgagtc atgcccttct aaaggtaaag gagctatttt  
900  
ttctttggca tcatatgtca cacaattaga tgctgcttt atgttcattt ctgaatctgt  
960  
catgttttta gtctcagctg tccccaaact agatttaaag cttaattcag tctgggtttc  
1020  
agcttctatc cggtgatctg taaaatcctt ttttcttttg gcagggtgat aatagcgata  
1080  
ctgtgacagg aaagattttg cttctgtttt taaagtgcga ggagtgaatg gcaattgttt  
1140  
gttagaaaag agttcagaat gtttatccaa aagatcccca ctgggtgctt tcgaaatgac  
1200  
taactgaaac cgggtgggaat ttgggaatgt gcttctgggc cttctgccat acagggctcc  
1260  
agagctcagt ttccggggcc cggaggtgc ataatccaca ctggacgggg aggaactgga  
1320  
gttcttctca ggaccatttg tgatgacttt actggattta thtagactta ggtgtagtct  
1380  
ctctgaagag ggtactagt accttgcaaa ggatgaaaat ccattcattt cttcttttaa  
1440  
catgtcatcc tcaatttgcg gtctgcctga gggcttttgt aaggatttaa aaagtgactt  
1500  
ggaattattt ttataattgg ctgcattgc agtttttagtt aatttgaact ctttttcaca  
1560  
ttgtgcta atctttttga gtttctctct tcgttgttgg tctgcatact ttatgctggt  
1620  
actcacgctt actggaaccg agcagtctac tgcagctttg gctgaaagga ttttattata  
1680  
gtgaacagcc atgtgattct tgaccagctg gagagtgtt agtctgagag aagaggagtc  
1740  
agtgcacaaa gcattacttt tgggtctcaa gtgtccttta aataggcacg gtggaccata  
1800  
tctgggaagg acagaggttg ctctgactct ccggctgcca ttcattgctta gtcctcttgc  
1860  
agccgcgcga gggacacgct gtataccctt cggctccttc cgcgcgcgcc accccggcag  
1920  
tggaggac  
1928

&lt;210&gt; 4310



<211> 599  
 <212> PRT  
 <213> Homo sapiens

<400> 4310

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Met Asn Gly Ser Arg Arg Val Arg Ala Thr Ser Val Leu Pro Arg Tyr
 1              5              10              15
Gly Pro Pro Cys Leu Phe Lys Gly His Leu Ser Thr Lys Ser Asn Ala
      20              25              30
Phe Cys Thr Asp Ser Ser Ser Leu Arg Leu Ser Thr Leu Gln Leu Val
      35              40              45
Lys Asn His Met Ala Val His Tyr Asn Lys Ile Leu Ser Ala Lys Ala
      50              55              60
Ala Val Asp Cys Ser Val Pro Val Ser Val Ser Thr Ser Ile Lys Tyr
      65              70              75              80
Ala Asp Gln Gln Arg Arg Glu Lys Leu Lys Lys Glu Leu Ala Gln Cys
      85              90              95
Glu Lys Glu Phe Lys Leu Thr Lys Thr Ala Met Arg Ala Asn Tyr Lys
      100             105             110
Asn Asn Ser Lys Ser Leu Phe Asn Thr Leu Gln Lys Pro Ser Gly Glu
      115             120             125
Pro Gln Ile Glu Asp Asp Met Leu Lys Glu Glu Met Asn Gly Phe Ser
      130             135             140
Ser Phe Ala Arg Ser Leu Val Pro Ser Ser Glu Arg Leu His Leu Ser
      145             150             155             160
Leu His Lys Ser Ser Lys Val Ile Thr Asn Gly Pro Glu Lys Asn Ser
      165             170             175
Ser Ser Ser Pro Ser Ser Val Asp Tyr Ala Ala Ser Gly Pro Arg Lys
      180             185             190
Leu Ser Ser Gly Ala Leu Tyr Gly Arg Arg Pro Arg Ser Thr Phe Pro
      195             200             205
Asn Ser His Arg Phe Gln Leu Val Ile Ser Lys Ala Pro Ser Gly Asp
      210             215             220
Leu Leu Asp Lys His Ser Glu Leu Phe Ser Asn Lys Gln Leu Pro Phe
      225             230             235             240
Thr Pro Arg Thr Leu Lys Thr Glu Ala Lys Ser Phe Leu Ser Gln Tyr
      245             250             255
Arg Tyr Tyr Thr Pro Ala Lys Arg Lys Lys Asp Phe Thr Asp Gln Arg
      260             265             270
Ile Glu Ala Glu Thr Gln Thr Glu Leu Ser Phe Lys Ser Glu Leu Gly
      275             280             285
Thr Ala Glu Thr Lys Asn Met Thr Asp Ser Glu Met Asn Ile Lys Gln
      290             295             300
Ala Ser Asn Cys Val Thr Tyr Asp Ala Lys Glu Lys Ile Ala Pro Leu
      305             310             315             320
Pro Leu Glu Gly His Asp Ser Thr Trp Asp Glu Ile Lys Asp Asp Ala
      325             330             335
Leu Gln His Ser Ser Pro Arg Ala Met Cys Gln Tyr Ser Leu Lys Pro
      340             345             350
Pro Ser Thr Arg Lys Ile Tyr Ser Asp Glu Glu Glu Leu Leu Tyr Leu
      355             360             365
Ser Phe Ile Glu Asp Val Thr Asp Glu Ile Leu Lys Leu Gly Leu Phe
      370             375             380
Ser Asn Arg Phe Leu Glu Arg Leu Phe Glu Arg His Ile Lys Gln Asn

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385          390          395          400
Lys His Leu Glu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
          405          410          415
Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
          420          425          430
Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
          435          440          445
Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
          450          455          460
Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
465          470          475          480
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
          485          490          495
Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
          500          505          510
Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
          515          520          525
Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
          530          535          540
Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
545          550          555          560
Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
          565          570          575
Asn His Asp Met Glu Leu Ser Thr Leu Lys Ile Met Glu Met Ser Ile
          580          585          590
Glu Asp Cys Pro Leu Asp Val
          595

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<210> 4311  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

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<400> 4311
nnacgcgtga agggcattcg cccttggaat tgtcagcgat gttttgcaca ttatgatgtc
60
cagagcattt tgtttaatat caacgaagcc atggctacga gggctaattgt ggggaaaagg
120
aaaaacataa ccactggggc atctgcagca tcccagactc agatgcctac gggccagaca
180
ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240
gccgatgagg gagatgggaa aagtaacgac ctcgctcctta gttgtcctta ctttagaaat
300
gagactggag gggaaggcga caggcggatt gcgctctctc gagccaactc atcctcttct
360
agttctgggg aaagctgctc ttctgaatcg tcaactcagct ctcaactgcac aaatgcaggt
420
gtctccgtct tg
432

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<210> 4312  
 <211> 144  
 <212> PRT

<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
 1           5           10          15
His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
          20          25          30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
          35          40          45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
          50          55          60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
        65          70          75          80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
          85          90          95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
          100         105         110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
          115         120         125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
130         135         140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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ggatccctcc ttttctctcc cctgccctgc ccaggcccag atggccttga ctgtaaagcc
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aggtgctgcc tgacagggtc ttctctccct gtctctgggc attgatccat ctctttgtcc
120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtcctggcag aatctacagt tcacccaac tctatgcctt acccctccca acccaacagc
240
atttgagtt tgcaaaatat acagacccaa gtcctgaggg gactgaggac atgatgctgg
300
gcccaagtct cctgtcagg gcttctctcc aatgccagcc ctgccactcc ttctcacc
360
tccttgagc ctctctgct gcttgtctat cccaacggcc ctgtccctcc ccttctctgc
420
ccttcaccag cttcttgga caccatgcc tgaggaaggg acctttgggt ttctctaaac
480
atctttgaag ggtgaggca gtcagggtg gctgccttgt cactctttat ttggaagcca
540
ctcaaacat tccaagaag agggacctca gctggcaatc tggaacctg gccaggtct
600
gggcagatgt cttcacttct cctaccttcc cagtcttggt atcctgtgat gagcaccagg
660
atggccctgt ggtccctaga gcaccttca tgctgtaggg tctgcagcc ccactcttcc
720
tctactgggc cctggtatcc tggtcctct ctcagctctg ccactgatct ctgtgcctta
780

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gtttacttct ctgcacgggg gactcacccc aagaccattt ccagcagctt cccaggtgat  
 840  
 gtggtgcccc aaggetgggc ttgcagctg tggcccagct ccttagtgct gcccaggaga  
 900  
 caccagctg ctccagaatga ggtgactgcg ggcaac  
 936

<210> 4314  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 4314  
 Met Ser Ser Leu Leu Pro Ser Gln Ser Cys Asp Pro Val Met Ser  
 1 5 10 15  
 Thr Arg Met Ala Leu Trp Ser Leu Glu His Pro Ser Cys Cys Arg Val  
 20 25 30  
 Leu Gln Pro His Pro Phe Ser Thr Gly Pro Trp Tyr Pro Gly Ser Ser  
 35 40 45  
 Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg  
 50 55 60  
 Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val  
 65 70 75 80  
 Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro  
 85 90 95  
 Arg Arg His Gln Ala Ala Gln Asn Glu Val Thr Ala Gly Asn  
 100 105 110

<210> 4315  
 <211> 573  
 <212> DNA  
 <213> Homo sapiens

<400> 4315  
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 60  
 cagagcgatg accatgtgaa gacacaggga agagatggcc acctaccacc acgccatggt  
 120  
 cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcactctacc atccaagcca  
 180  
 ccgtcaccta ccatccaagc catggccacc tacctgccaa gccatggcca cctaccggcc  
 240  
 aagccatggt cacctaccca ccaagtcatg gtcgcctacc atccaaggag caggcctgga  
 300  
 acagatcctt cccagagacc ctccagtagga gccaacctg ctgacacctt gatctcagac  
 360  
 ttcaagcctc cagaactgtg ggacaatcct tcaactgtcat ttaatccacc cagcatgtgg  
 420  
 tctcttgtca cagttgcatt agccagtga cctaccggg cccttctgca gtcgcctggc  
 480  
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 540  
 agacccgagg gagatatttg ggaaacaaga tgg  
 573

<210> 4316  
 <211> 169  
 <212> PRT  
 <213> Homo sapiens

<400> 4316  
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 1 5 10 15  
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp  
 20 25 30  
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser  
 35 40 45  
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr  
 50 55 60  
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala  
 65 70 75 80  
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg  
 85 90 95  
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn  
 100 105 110  
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp  
 115 120 125  
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr  
 130 135 140  
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly  
 145 150 155 160  
 Ser Gly Val Val Leu Val Arg Lys Phe  
 165

<210> 4317  
 <211> 744  
 <212> DNA  
 <213> Homo sapiens

<400> 4317  
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 60  
 tcccatgccg aaaacatact ccagatattt aatgaatttc gtgatagccg cttattcaca  
 120  
 gatgttatca ttgggtgga aggaaaagaa tttccttgcc atagagctgt gctctcagcc  
 180  
 tgtagcagct acttcagagc tatgttttgt aatgaccaca gggaaagccg agaaatgttg  
 240  
 gttgagatca atggtatttt agctgaagct atggaatgtt ttttcagta tgtttatact  
 300  
 ggaaagggtga agatcactac agagaatgta cagtatctct ttgagacatc aagcctcttt  
 360  
 cagattagtg ttctccgtga tgcattgtgcc aagttcttgg aggagcaact tgatccttgt  
 420  
 aattgcttag gaatccagcg ctttctgat acccattcac tcaaaacact cttcacaaaa  
 480  
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag  
 540

cttgacaaaag atgaacttat tgattatatt tgtagtgatg aacttggttat tggtaaagag  
 600  
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 744

<210> 4318  
 <211> 239  
 <212> PRT  
 <213> Homo sapiens

<400> 4318  
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 Val Ile Ile Trp Val Glu Gly Lys Glu Phe Pro Cys His Arg Ala Val  
 35 40 45  
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 Arg Glu Ser Arg Glu Met Leu Val Glu Ile Asn Gly Ile Leu Ala Glu  
 65 70 75 80  
 Ala Met Glu Cys Phe Leu Gln Tyr Val Tyr Thr Gly Lys Val Lys Ile  
 85 90 95  
 Thr Thr Glu Asn Val Gln Tyr Leu Phe Glu Thr Ser Ser Leu Phe Gln  
 100 105 110  
 Ile Ser Val Leu Arg Asp Ala Cys Ala Lys Phe Leu Glu Glu Gln Leu  
 115 120 125  
 Asp Pro Cys Asn Cys Leu Gly Ile Gln Arg Phe Ala Asp Thr His Ser  
 130 135 140  
 Leu Lys Thr Leu Phe Thr Lys Cys Lys Asn Phe Ala Leu Gln Thr Phe  
 145 150 155 160  
 Glu Asp Val Ser Gln His Glu Glu Phe Leu Glu Leu Asp Lys Asp Glu  
 165 170 175  
 Leu Ile Asp Tyr Ile Cys Ser Asp Glu Leu Val Ile Gly Lys Glu Glu  
 180 185 190  
 Met Val Phe Glu Ala Val Met Arg Trp Val Tyr Arg Ala Val Asp Leu  
 195 200 205  
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 210 215 220  
 Leu His Pro Asn Tyr Phe Val Gln Thr Val Glu Val Asp Gln Leu  
 225 230 235

<210> 4319  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 4319  
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 388

<210> 4320  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 4320  
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 20 25 30  
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 35 40 45  
 Asn Ser Ile Ser Leu Leu Ser Glu Lys Leu Thr Ser Ser Cys Ser Pro  
 50 55 60  
 His His Ile Lys Arg Ser Val Val Glu Ala Met Gln Arg Gln Ala Arg  
 65 70 75 80  
 Lys Met Cys Asn Tyr Asp Lys Ile Leu Ala Thr Lys Lys Asn Leu Asp  
 85 90 95  
 His Val Asn Lys Ile Leu Lys Ala Lys Lys Leu Gln Arg Gln Ala Arg  
 100 105 110  
 Thr Gly Asn Asn Phe Val Lys Arg Arg Pro Gly Arg Pro Arg Ser Glu  
 115 120 125  
 Arg

<210> 4321  
 <211> 278  
 <212> DNA  
 <213> Homo sapiens

<400> 4321  
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 120  
 cgtcccgggtg gaaggcagcc ctgggaggaa cccaggcggt taacgggtca ctaggcagcc  
 180  
 ccagatctgg ggaacagatg agcacgtggg gagctggagt gagctgagca gaagttttgt  
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 gcccgccctgc ccccatcccc tccaggccac gttttaga  
 278

<210> 4322  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 4322  
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 1 5 10 15  
 His Val Leu Ile Cys Ser Pro Asp Leu Gly Leu Pro Ser Glu Pro Leu  
 20 25 30  
 Asn Ala Trp Val Pro Pro Arg Ala Ala Phe His Arg Asp Ala Gly Pro  
 35 40 45  
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro  
 50 55 60  
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu  
 65 70 75 80  
 Trp Gln Val Leu Gly  
 85

<210> 4323  
 <211> 1542  
 <212> DNA  
 <213> Homo sapiens

<400> 4323  
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 120  
 gacgagaaga ttgaggtgga tgacccccct gacaaggagg acatgcgatc aagcttcagg  
 180  
 tcgaatgtgt tgacgggggc ggctcccag caggactacg ataagctgaa ggcactcggg  
 240  
 ggggaaaact ccagcaaaac tggactctct acgtcaggca atgtggagaa aaacaaagct  
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 360  
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 420  
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 720  
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 780  
 gtccgcataa aaaccattaa gacatcttct ggggaaatca agagaacagt gaccagggta  
 840



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 1020  
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<210> 4324  
 <211> 514  
 <212> PRT  
 <213> Homo sapiens

<400> 4324  
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 Ser Ser Ala Glu Glu Phe Asp Asp Asp Glu Lys Ile Glu Val Asp Asp  
 35 40 45  
 Pro Pro Asp Lys Glu Asp Met Arg Ser Ser Phe Arg Ser Asn Val Leu  
 50 55 60  
 Thr Gly Ser Ala Pro Gln Gln Asp Tyr Asp Lys Leu Lys Ala Leu Gly  
 65 70 75 80  
 Gly Glu Asn Ser Ser Lys Thr Gly Leu Ser Thr Ser Gly Asn Val Glu  
 85 90 95  
 Lys Asn Lys Ala Val Lys Arg Glu Thr Glu Ala Ser Ser Ile Asn Leu  
 100 105 110  
 Ser Val Tyr Glu Pro Phe Lys Val Arg Lys Ala Glu Asp Lys Leu Lys  
 115 120 125  
 Glu Ser Ser Asp Lys Val Leu Glu Asn Arg Val Leu Asp Gly Lys Leu  
 130 135 140  
 Ser Ser Glu Lys Asn Asp Thr Ser Leu Pro Ser Val Ala Pro Ser Lys  
 145 150 155 160  
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[illegible]

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<211> 1405
<212> DNA
<213> Homo sapiens
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120
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 1260  
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 1405

&lt;210&gt; 4326

&lt;211&gt; 336

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4326

Met Phe Phe Leu Pro Gln Val Leu Leu Ala Trp Ser Gly Gly Pro Ser  
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 Ser Ser Ser Met Val Trp Gln Val Leu Glu Gly Leu Ser Gln Asp Ser

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Ala Lys Arg Leu Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly
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Val Lys Pro Ile Leu Gln Ala Thr Gly Phe Pro Trp His Val Val Ala
  65      70      75      80
Leu Glu Glu Val Phe Ser Leu Pro Pro Ser Val Leu Trp Cys Ser Ala
      85      90      95
Gln Glu Leu Val Gly Ser Glu Gly Ala Tyr Lys Ala Ala Val Asp Ser
      100      105      110
Phe Leu Gln Gln Gln Tyr Val Leu Gly Ala Gly Gly Gly Pro Gly Pro
      115      120      125
Thr Gln Gly Glu Glu Gln Pro Pro Gln Pro Pro Leu Asp Pro Gln Asn
      130      135      140
Leu Ala Arg Pro Pro Ala Pro Ala Gln Thr Glu Ala Leu Ser Gln Leu
      145      150      155      160
Phe Cys Ser Val Arg Thr Leu Thr Ala Lys Glu Glu Leu Leu Gln Thr
      165      170      175
Leu Arg Thr His Leu Ile Leu His Met Ala Arg Ala His Gly Tyr Ser
      180      185      190
Lys Val Met Thr Gly Asp Ser Cys Thr Arg Leu Ala Ile Lys Leu Met
      195      200      205
Thr Asn Leu Ala Leu Gly Arg Gly Ala Phe Leu Ala Trp Asp Thr Gly
      210      215      220
Phe Ser Asp Glu Arg His Gly Asp Val Val Val Val Arg Pro Met Arg
      225      230      235      240
Asp His Thr Leu Lys Glu Val Ala Phe Tyr Asn Arg Leu Phe Ser Val
      245      250      255
Pro Ser Val Phe Thr Pro Ala Val Asp Thr Lys Ala Pro Glu Lys Ala
      260      265      270
Ser Ile His Arg Leu Met Glu Ala Phe Ile Leu Arg Leu Gln Thr Gln
      275      280      285
Phe Pro Ser Thr Val Ser Thr Val Tyr Arg Cys Val Trp Val Cys Ala
      290      295      300
Gly Gly Ala Arg Val Cys Ala Val Cys Gly Cys Val Arg Val Val Ser
      305      310      315      320
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&lt;210&gt; 4327

&lt;211&gt; 551

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4327

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240

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 551

<210> 4328  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 4328  
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 Ala Thr Ser Ser Pro Trp Leu Cys Gly Leu Ser Val Ser His Pro Gln  
 35 40 45  
 His Leu Asp Gly Leu Arg Val Arg Ala Lys Val Arg Arg Pro Gly His  
 50 55 60  
 His Thr Ile Pro Ala Thr Thr Arg Trp Leu Phe Leu Glu Ser Glu Gly  
 65 70 75 80  
 Gly Arg Arg Cys Leu Gly Ser Trp Gly Cys Leu Gly Ser Glu Pro Val  
 85 90 95  
 Arg Val Ser Pro Ala Cys Pro Ser Ile Ser Trp  
 100 105

<210> 4329  
 <211> 3192  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4330

&lt;211&gt; 371

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4330

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Met	Leu	Leu	Asp	Tyr	Ser	Val	Tyr	Met	Gly	Arg	Cys	Val	Pro	Gln	Glu
			20					25					30		
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
		35					40					45			
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

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Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
      85              90              95
Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
      100              105              110
Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
      115              120              125
Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
      130              135              140
Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
      145              150              155              160
Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
      165              170              175
Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
      180              185              190
Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
      195              200              205
Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
      210              215              220
Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
      225              230              235              240
Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
      245              250              255
Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
      260              265              270
Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
      275              280              285
Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
      290              295              300
Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
      305              310              315              320
Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
      325              330              335
Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
      340              345              350
Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
      355              360              365
Asp Arg Pro
      370

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&lt;210&gt; 4331

&lt;211&gt; 1355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4331

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60

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120

gatttaaagt agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca

180



gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt  
 240  
 tcagaagtaa agattcagga attcaagcct tccaataagg ttgttcaaac agatgaaact  
 300  
 gcaaggaaac cagaccatgt tcctatttagc agtgaagatg agaggaaatgc aattttccaa  
 360  
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 420  
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 480  
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 540  
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 660  
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 720  
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 780  
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 960  
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 1020  
 agtcatgaca ctgattaata caagttgtct taacgttact ccaggaccac ttgattttgg  
 1080  
 aaagagtgc ctttaattcag aagctaaaga aaatcagttc ataatactat ggattttctt  
 1140  
 ttcattaagc cttaatttta agggaaacat cagtaagaaa ctgcactgaa gaattataaa  
 1200  
 acattttggg gcatagcata cacttgctta acggttcaca cgtggctatg atcacaagca  
 1260  
 actttgaact ggaatgctat ttataaaagt tttgtgtatt aatctgtgta ttaatctctc  
 1320  
 tggataaaaa gaaggaaaaa atatgtatga ccggt  
 1355

&lt;210&gt; 4332

&lt;211&gt; 345

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4332

Glu	Lys	Tyr	Phe	Asn	His	Lys	Ala	Leu	Gln	Leu	Leu	His	Cys	Phe	Pro
1				5				10					15		
Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
	20						25					30			
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
	35					40					45				
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

```

      50      55      60
Pro Phe Ala Glu Glu Asp Leu Ser Ala Asp Ala Leu Leu Asn Ile Leu
65      70      75      80
Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
      85      90      95
Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
      100      105      110
Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
      115      120      125
Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
      130      135      140
Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
145      150      155      160
Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
      165      170      175
Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
      180      185      190
Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
      195      200      205
Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
      210      215      220
Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
225      230      235      240
Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
      245      250      255
Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
      260      265      270
Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
      275      280      285
Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
      290      295      300
Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
305      310      315      320
Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
      325      330      335
Arg Tyr Tyr Phe Ser His Asp Thr Asp
      340      345

```

&lt;210&gt; 4333

&lt;211&gt; 1278

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4333

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120
cggaagcccc ccgcgtcttc ccgagtgtcc aggatgtttt ccgtggctca cccagccgcc
180
aagggtccgc agcccgagcg gctggacctg gtgtacacgg cgctgaagcg gggcctgacg
240
gcctacttgg aagtgcacca gcaggagcaa gagaaactcc aggggcagat aaggaggtcc
300

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 420  
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 1278

&lt;210&gt; 4334

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4334

Arg	Pro	Gln	Arg	Arg	Leu	Leu	Ser	Ala	Arg	Val	Asn	Arg	Ser	Gln	Ser
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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
			20					25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35					40					45			
Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
	50					55					60				
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65				70					75					80	
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Glu	Lys	Leu	Gln	Gly	Gln
				85				90					95		
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

	100		105		110										
Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe
	115						120				125				
His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg
	130						135				140				
Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly
145				150						155				160	
Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg
			165					170						175	
Gly	His	Arg	Glu	Tyr	Thr	Glu	Val	Gly	Asp	Gly	Gly	Pro			
	180							185							

&lt;210&gt; 4335

&lt;211&gt; 1211

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4335

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120

ctggccttgg gtgcggcact cgtgaatgta cagatccccc tgctcctggg ccagctggta

180

gaggtcgtgg ccaagtacac aaggaccac gtagggagtt tcatgactga gtctcagaat

240

ctcagacccc acctgcttat cctctatggt gtccaggac tgctgacctt cgggtacctg

300

gtgctgctgt cccacgttgg cgagcgcatt gctgtggaca tgcggagggc cctcttcagc

360

tccctgctcc gacaagacat caccttcttt gacgccaata agacagggca gctggtgagc

420

cgcttgacaa ctgacgtgca ggagtttaag tcatccttca agcttgtcat ctcccagggg

480

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540

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600

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660

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720

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840

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 1211

<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

Trp	Glu	Arg	Lys	Gly	Gln	Asp	Leu	Ala	Gly	Asp	Gly	Glu	Glu	Trp	Leu
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Pro	Pro	Leu	Lys	Thr	Phe	Val	Pro	Ser	Val	Ser	Pro	Phe	Gln	Leu	Ala
		20					25				30				
Leu	Gly	Ala	Ala	Leu	Val	Asn	Val	Gln	Ile	Pro	Leu	Leu	Leu	Gly	Gln
	35					40					45				
Leu	Val	Glu	Val	Val	Ala	Lys	Tyr	Thr	Arg	Asp	His	Val	Gly	Ser	Phe
	50				55				60						
Met	Thr	Glu	Ser	Gln	Asn	Leu	Ser	Thr	His	Leu	Leu	Ile	Leu	Tyr	Gly
65				70					75					80	
Val	Gln	Gly	Leu	Leu	Thr	Phe	Gly	Tyr	Leu	Val	Leu	Leu	Ser	His	Val
		85					90						95		
Gly	Glu	Arg	Met	Ala	Val	Asp	Met	Arg	Arg	Ala	Leu	Phe	Ser	Ser	Leu
	100						105					110			
Leu	Arg	Gln	Asp	Ile	Thr	Phe	Phe	Asp	Ala	Asn	Lys	Thr	Gly	Gln	Leu
	115					120					125				
Val	Ser	Arg	Leu	Thr	Thr	Asp	Val	Gln	Glu	Phe	Lys	Ser	Ser	Phe	Lys
	130				135				140						
Leu	Val	Ile	Ser	Gln	Gly	Leu	Arg	Ser	Cys	Thr	Gln	Val	Ala	Gly	Cys
145			150						155					160	
Leu	Val	Ser	Leu	Ser	Met	Leu	Ser	Thr	Arg	Leu	Thr	Leu	Leu	Leu	Met
		165					170						175		
Val	Ala	Thr	Pro	Ala	Leu	Met	Gly	Val	Gly	Thr	Leu	Met	Gly	Ser	Gly
	180						185					190			
Leu	Arg	Lys	Leu	Ser	Arg	Gln	Cys	Gln	Glu	Gln	Ile	Ala	Arg	Ala	Met
	195					200					205				
Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg	Ala	Phe
	210				215						220				
Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu	Glu	Ala
225			230						235					240	
Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu	Phe	Gln
		245					250						255		
Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Met	Val	Leu	Gly	Thr	Leu	Phe
	260					265						270			
Ile	Gly	Gly	Ser	Leu	Val	Ala	Gly	Gln	Gln	Leu	Thr	Gly	Gly	Asp	Leu
	275					280						285			
Met	Ser	Phe	Leu	Val	Ala	Ser	Gln	Thr	Val	Gln	Ser	Phe	Leu	Arg	Val
	290				295						300				
Ala	Pro	Cys	Pro	Asn	Ser	Leu	Pro	Leu	Gln	Ala	Val	Thr	Leu	His	Ala
305				310					315					320	
Trp	Lys	Asp	His	Pro											

325

<210> 4337  
 <211> 461  
 <212> DNA  
 <213> Homo sapiens

<400> 4337  
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 120  
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 240  
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 300  
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 360  
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<210> 4338  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 4338  
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 Ala Ser Ser Ala Pro Gly Asp Pro Ser Leu Gly Val Gly Arg Thr Ser  
 20 25 30  
 Thr Trp Phe Pro Ser Ser Gly Ala His Gly Gly Glu Val Glu Gly Gly  
 35 40 45  
 Arg Arg Glu Gly Ala Thr Cys Ser Val Glu Lys Gln Gln Ser Pro  
 50 55 60  
 Leu Gln Pro Ala Gln Leu Ala Phe Leu Thr Leu Ser Leu Pro Gly Leu  
 65 70 75 80  
 Cys Gly Arg Glu Gly Gln Ala Arg Trp Pro Ala Arg Asp Val Val Phe  
 85 90 95  
 Ser Phe Val Leu Cys Thr Met Pro Gln Lys Asn Ile Leu Leu Ile Cys  
 100 105 110  
 Asn Gln Asp Asn Ile Ile  
 115

<210> 4339  
 <211> 5269  
 <212> DNA  
 <213> Homo sapiens

<400> 4339

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120  
cccagccccg gagatggaaa tccaagagaa aacagcccat tcctcaacaa tgtcgagggtg  
180  
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240  
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480  
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600  
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<210> 4340  
 <211> 1088  
 <212> PRT  
 <213> Homo sapiens

<400> 4340

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 Glu Gly Lys Asn Met Ala Leu Phe Glu Glu Glu Met Asp Ser Asn Pro  
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 Met Val Ser Ser Leu Leu Asn Lys Leu Ala Asn Tyr Thr Asn Leu Ser  
 85 90 95  
 Gln Gly Val Val Glu His Glu Glu Asp Glu Glu Ser Arg Arg Arg Glu  
 100 105 110  
 Ala Lys Ala Pro Arg Met Gly Thr Phe Ile Gly Val Tyr Leu Pro Cys  
 115 120 125  
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 Val Gly Val Ala Gly Val Leu Glu Ser Phe Leu Ile Val Ala Met Cys  
 145 150 155 160  
 Cys Thr Cys Thr Met Leu Thr Ala Ile Ser Met Ser Ala Ile Ala Thr  
 165 170 175  
 Asn Gly Val Val Pro Ala Gly Gly Ser Tyr Tyr Met Ile Ser Arg Ser  
 180 185 190  
 Leu Gly Pro Glu Phe Gly Gly Ala Val Gly Leu Cys Phe Tyr Leu Gly  
 195 200 205  
 Thr Thr Phe Ala Gly Ala Met Tyr Ile Leu Gly Thr Ile Glu Ile Phe  
 210 215 220  
 Leu Thr Tyr Ile Ser Pro Gly Ala Ala Ile Phe Gln Ala Glu Ala Ala  
 225 230 235 240  
 Gly Gly Glu Ala Ala Ala Met Leu His Asn Met Arg Val Tyr Gly Thr  
 245 250 255  
 Cys Thr Leu Val Leu Met Ala Leu Val Val Phe Val Gly Val Lys Tyr

260	265	270
Val Asn Lys Leu Ala Leu Val Phe Leu Ala Cys Val Val Leu Ser Ile		
275	280	285
Leu Ala Ile Tyr Ala Gly Val Ile Lys Ser Ala Phe Asp Pro Pro Asp		
290	295	300
Ile Pro Val Cys Leu Leu Gly Asn Arg Thr Leu Ser Arg Arg Ser Phe		
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Asp Ala Cys Val Lys Ala Tyr Gly Ile His Asn Asn Ser Ala Thr Ser		
325	330	335
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340	345	350
Asp Glu Tyr Phe Ile Gln Asn Asn Val Thr Glu Ile Gln Gly Ile Pro		
355	360	365
Gly Ala Ala Ser Gly Val Phe Leu Glu Asn Leu Trp Ser Thr Tyr Ala		
370	375	380
His Ala Gly Ala Phe Val Glu Lys Lys Gly Val Pro Ser Val Pro Val		
385	390	395
Ala Glu Glu Ser Arg Ala Ser Ala Leu Pro Tyr Val Leu Thr Asp Ile		
405	410	415
Ala Ala Ser Phe Thr Leu Leu Val Gly Ile Tyr Phe Pro Ser Val Thr		
420	425	430
Gly Ile Met Ala Gly Ser Asn Arg Ser Gly Asp Leu Lys Asp Ala Gln		
435	440	445
Lys Ser Ile Pro Thr Gly Thr Ile Leu Ala Ile Val Thr Thr Ser Phe		
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Ile Tyr Leu Ser Cys Ile Val Leu Phe Gly Ala Cys Ile Glu Gly Val		
465	470	475
Val Leu Arg Asp Lys Phe Gly Glu Ala Leu Gln Gly Asn Leu Val Ile		
485	490	495
Gly Met Leu Ala Trp Pro Ser Pro Trp Val Ile Val Ile Gly Ser Phe		
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Phe Ser Thr Cys Gly Ala Gly Leu Gln Thr Leu Thr Gly Ala Pro Arg		
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Leu Leu Gln Ala Ile Ala Arg Asp Gly Ile Val Pro Phe Leu Gln Val		
530	535	540
Phe Gly His Gly Lys Ala Asn Gly Glu Pro Thr Trp Ala Leu Leu Leu		
545	550	555
Thr Val Leu Ile Cys Glu Thr Gly Ile Leu Ile Ala Ser Leu Asp Ser		
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Val Ala Pro Ile Leu Ser Met Phe Phe Leu Met Cys Tyr Leu Phe Val		
580	585	590
Asn Leu Ala Cys Ala Val Gln Thr Leu Leu Arg Thr Pro Asn Trp Arg		
595	600	605
Pro Arg Phe Lys Phe Tyr His Trp Thr Leu Ser Phe Leu Gly Met Ser		
610	615	620
Leu Cys Leu Ala Leu Met Phe Ile Cys Ser Trp Tyr Tyr Ala Leu Ser		
625	630	635
Ala Met Leu Ile Ala Gly Cys Ile Tyr Lys Tyr Ile Glu Tyr Arg Gly		
645	650	655
Ala Glu Lys Glu Trp Gly Asp Gly Ile Arg Gly Leu Ser Leu Asn Ala		
660	665	670
Ala Arg Tyr Ala Leu Leu Arg Val Glu His Gly Pro Pro His Thr Lys		
675	680	685
Asn Trp Arg Pro Gln Val Leu Val Met Leu Asn Leu Asp Ala Glu Gln		

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        690              695              700
Ala Val Lys His Pro Arg Leu Leu Ser Phe Thr Ser Gln Leu Lys Ala
705              710              715              720
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              725              730              735
Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu
              740              745              750
Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser
              755              760              765
Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly
              770              775              780
Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys
785              790              795              800
Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg
              805              810              815
Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp
              820              825              830
Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val
              835              840              845
Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu
850              855              860
Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr
865              870              875              880
Val Ala Gln Val Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln
              885              890              895
Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu
              900              905              910
Met Val Glu Asn Asp Ile Ser Ala Phe Thr Tyr Glu Arg Thr Leu Met
              915              920              925
Met Glu Gln Arg Ser Gln Met Leu Lys Gln Met Gln Leu Ser Lys Asn
930              935              940
Glu Gln Glu Arg Glu Ala Gln Leu Ile His Asp Arg Asn Thr Ala Ser
945              950              955              960
His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys
              965              970              975
Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg
              980              985              990
Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys
              995              1000              1005
Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr
1010              1015              1020
Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp Ala Gln
1025              1030              1035              1040
Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln Gly Asp
              1045              1050              1055
Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Asn Arg
              1060              1065              1070
Val Leu Leu Val Arg Gly Gly Gly Arg Glu Val Ile Thr Ile Tyr Ser
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&lt;210&gt; 4341

&lt;211&gt; 693

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 180  
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 300  
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 420  
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 <213> Homo sapiens

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 Lys Glu Gly Leu Val Ser Val Gly Ile Thr Gln Lys Arg Ala Leu Tyr  
 35 40 45  
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala  
 50 55 60  
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys  
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 <211> 499  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 4344

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4344

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			20				25						30		
Thr	Leu	Gly	Ala	Trp	Thr	Glu	Ser	Ser	Gly	Gly	Arg	Ala	Ala	Gly	Pro
		35				40					45				
Gly	Gly	Glu	Arg	Arg	Thr	Asp	Phe	Arg	Gly	Gly	Pro	Gly	His	Ala	Ala
		50			55						60				
Glu	Thr	Thr	Arg	Leu	Pro	Gly	Gly	Gly	Gln	Asp	Arg	Pro	Cys	Pro	Asp
65				70					75				80		
Lys	Met	Glu	Phe	Pro	Val	Trp	Leu	Gln	Leu	Ala	Ala	Arg	Ser	Gln	Ser
			85					90					95		
Ser	Ser	Val	Ile	Arg	Leu	Ser	Asp	Cys	Ser	Pro	Phe	Ile	Ser	Phe	Ala
		100					105						110		
Val	Val	Gln	Ile	Leu	Ile										
			115												

&lt;210&gt; 4345

&lt;211&gt; 349

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4345

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<210> 4346  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly  
 50 55 60  
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu  
 65 70 75 80  
 Gly Val Arg Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln  
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 His His Cys Ala  
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<210> 4347  
 <211> 353  
 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

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<210> 4349  
 <211> 2040  
 <212> DNA  
 <213> Homo sapiens

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<210> 4350

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4350

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Phe	Pro	Pro	Leu	Ala	His	Ala	Pro	Leu	Thr	Gly	Thr	Arg	Pro	Ser	Cys
		35					40					45			
Gly	Pro	Arg	Leu	Trp	His	Gly	Thr	Cys	Pro	Ser	Ala	Gln	His	Gly	Pro
	50					55				60					
Gly	Ala	Thr	Leu	Leu	Ala	Glu	Gly	Gln	Gly	Pro	Leu	Cys	Arg	Gln	Trp
65					70				75					80	
Gly	Gly	Gly	Pro	Arg	Phe	Pro	Asp	Arg	Gly	Arg	Gln	Gly	Thr	Gly	Glu
			85					90					95		
Pro	Ala	Ser	Pro	Ser	Gly	Gln	His	Gly	Pro	Gly	Gln	Thr	Glu	Gln	Gly
			100					105						110	

Pro









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<212> PRT

<213> Homo sapiens

<400> 4354

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 Pro Pro Ala Glu Leu Leu Leu Ala Gln Thr Glu Asp Tyr Val Glu Tyr  
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 Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys His Arg Lys Ser Ser  
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 Ser Asp Ser Asp Asp Glu Glu Lys Lys His Glu Lys Leu Lys Ala  
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Gly Leu Ala Ala Lys Gln Ser Arg Ile Arg Asn Ile Ser Asn Thr Val			
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65	70	75	80
Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly			
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Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn			
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Pro Glu Asp Val Ala Arg Leu Ile Phe Ser Lys Met Lys Glu Thr Ala			
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Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly			

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&lt;210&gt; 4357

&lt;211&gt; 421

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4357

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&lt;210&gt; 4358

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4358

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Gly Leu Pro Pro Arg Phe Ser Ser Pro Thr Pro Leu Trp Arg Lys Val
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Val Met Ala Glu Ala Arg Glu Lys Arg Arg Met Arg Leu Val Val Asp
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115

&lt;210&gt; 4359

&lt;211&gt; 3661

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4359

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&lt;211&gt; 670

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4360

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Thr	Leu	Ala	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Asp	Ser	Met	Pro	Pro	Ile
65					70					75				80	
Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
			85						90					95	
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
			100					105					110		
Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
		115				120						125			
Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
130						135					140				
Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
145				150						155				160	
Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
			165						170					175	
Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys

			180							185							190				
Arg	Val	Ala	Gly	Ser	Gly	Lys	Pro	Pro	Ile	Phe	Glu	Val	Asp	Pro	Arg						
		195					200					205									
Gly	Cys	Pro	Phe	Thr	Ile	Lys	Leu	Ser	Ala	Arg	Lys	Asp	His	Glu	Gly						
		210					215					220									
Ser	Cys	Asp	Tyr	Arg	Pro	Val	Arg	Cys	Pro	Asn	Asn	Pro	Ser	Cys	Pro						
225					230					235							240				
Pro	Leu	Leu	Arg	Met	Asn	Leu	Glu	Ala	His	Leu	Lys	Glu	Cys	Glu	His						
				245					250					255							
Ile	Lys	Cys	Pro	His	Ser	Lys	Tyr	Gly	Cys	Thr	Phe	Ile	Gly	Asn	Gln						
		260					265					270									
Asp	Thr	Tyr	Glu	Thr	His	Leu	Glu	Thr	Cys	Arg	Phe	Glu	Gly	Leu	Lys						
		275					280					285									
Glu	Phe	Leu	Gln	Gln	Thr	Asp	Asp	Arg	Phe	His	Glu	Met	His	Val	Ala						
		290					295					300									
Leu	Ala	Gln	Lys	Asp	Gln	Glu	Ile	Ala	Phe	Leu	Arg	Ser	Met	Leu	Gly						
305					310					315							320				
Lys	Leu	Ser	Glu	Lys	Ile	Asp	Gln	Leu	Glu	Lys	Ser	Leu	Glu	Leu	Lys						
				325					330					335							
Phe	Asp	Val	Leu	Asp	Glu	Asn	Gln	Ser	Lys	Leu	Ser	Glu	Asp	Leu	Met						
		340					345					350									
Glu	Phe	Arg	Arg	Asp	Ala	Ser	Met	Leu	Asn	Asp	Glu	Leu	Ser	His	Ile						
		355					360					365									
Asn	Ala	Arg	Leu	Asn	Met	Gly	Ile	Leu	Gly	Ser	Tyr	Asp	Pro	Gln	Gln						
		370					375					380									
Ile	Phe	Lys	Cys	Lys	Gly	Thr	Phe	Val	Gly	His	Gln	Gly	Pro	Val	Trp						
385					390					395							400				
Cys	Leu	Cys	Val	Tyr	Ser	Met	Gly	Asp	Leu	Leu	Phe	Ser	Gly	Ser	Ser						
				405					410					415							
Asp	Lys	Thr	Ile	Lys	Val	Trp	Asp	Thr	Cys	Thr	Thr	Tyr	Lys	Cys	Gln						
		420					425					430									
Lys	Thr	Leu	Glu	Gly	His	Asp	Gly	Ile	Val	Leu	Ala	Leu	Cys	Ile	Gln						
		435					440					445									
Gly	Cys	Lys	Leu	Tyr	Ser	Gly	Ser	Ala	Asp	Cys	Thr	Ile	Ile	Val	Trp						
		450					455					460									
Asp	Ile	Gln	Asn	Leu	Gln	Lys	Val	Asn	Thr	Ile	Arg	Ala	His	Asp	Asn						
465					470					475							480				
Pro	Val	Cys	Thr	Leu	Val	Ser	Ser	His	Asn	Val	Leu	Phe	Ser	Gly	Ser						
				485					490					495							
Leu	Lys	Ala	Ile	Lys	Val	Trp	Asp	Ile	Val	Gly	Thr	Glu	Leu	Lys	Leu						
		500					505					510									
Lys	Lys	Glu	Leu	Thr	Gly	Leu	Asn	His	Trp	Val	Arg	Ala	Leu	Val	Ala						
		515					520					525									
Ala	Gln	Ser	Tyr	Leu	Tyr	Ser	Gly	Ser	Tyr	Gln	Thr	Ile	Lys	Ile	Trp						
		530					535					540									
Asp	Ile	Arg	Thr	Leu	Asp	Cys	Ile	His	Val	Leu	Gln	Thr	Ser	Gly	Gly						
545					550					555							560				
Ser	Val	Tyr	Ser	Ile	Ala	Val	Thr	Asn	His	His	Ile	Val	Cys	Gly	Thr						
				565																	

610	615	620
Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu		
625	630	635
Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg Leu		640
	645	650
Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys		655
660	665	670

<210> 4361  
 <211> 574  
 <212> DNA  
 <213> Homo sapiens

<400> 4361  
 nggatccaga acccattgct atcaggctgt acagccttca atcacaacgg gaacctgctg  
 60  
 gtcacagggg cagctgatgg cgtcatccgg ctgtttgaca tgcagcagca tgagtgcg  
 120  
 atgagctgga gggcccacta cggggaggtc tactctgtgg agttcagcta tgatgagaac  
 180  
 accgtgtaca gcatcggcga ggacgggaag gtaggcggct ccaggattca gataagagag  
 240  
 caccgggatg acatgtgggc cggtgcagg ttgtggccat acctgttact agctctgcaa  
 300  
 cctggggcct ctttttgag ctttgttacc tgtagaatag ggataaacta gtaattcg  
 360  
 ttacaatcct tgcgagggtt tagtgaattc agtgggagtt ggctatcctt atgaaaggaa  
 420  
 gtacaaaaaa ttactcatct taccatagat gtatctgtgg ggtctggatt tagggctgag  
 480  
 ttgcttttgc tgggcttggg agtgagtggg cccaggacca ctcatggatg tgtagtttgc  
 540  
 tgagtggctg gggacagctt cttacatgtg taca  
 574

<210> 4362  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 4362  
 Xaa Ile Gln Asn Pro Leu Leu Ser Gly Cys Thr Ala Phe Asn His Asn  
 1 5 10 15  
 Gly Asn Leu Leu Val Thr Gly Ala Ala Asp Gly Val Ile Arg Leu Phe  
 20 25 30  
 Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly  
 35 40 45  
 Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser  
 50 55 60  
 Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu  
 65 70 75 80  
 His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu  
 85 90 95  
 Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg



Ile Gly Ile Asn  
115

<210> 4363  
<211> 1222  
<212> DNA  
<213> Homo sapiens

<400> 4363  
tttttttttt tttttttttt tttttttttt tttttttttt tttttgagat ttcccaggac  
60  
tggctttaat ttgaaaaatc tgattggggt ctcttcccgt atcagagaag gaacagccca  
120  
agctatgacc ccaggggccag ggaattcagt cccaccaga ccctgtcatt ccatcactag  
180  
ggggtaatc caggctcccc ctgccagccc tgagacagga ggacggatgt gaagttgccc  
240  
aggactagat tctgtctctc caaagtggcc caagccctgt tctctgtact agggaagcca  
300  
gctgtgtctt ttgaggaca gttgtccag ccagcaggct cagttcagat accagacaac  
360  
cattccagca cgagggtcga gcgccctggc cccggcggtc gctccagtgc ctgtgtgccc  
420  
accagcacat ccatgaggta gtccaattcg gcctcgtcca gctccggagc ttctccttg  
480  
cccggcccat cctcagggcc tggtttgagg ccctcagagg ctggtgcccc aagttcattg  
540  
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600  
ccagtggctg ggcccagcag gtccaaggca cccaggctgg gcgtgctcc cccgatgcta  
660  
cggcctgggt gccctcgtc tgccaagggt tggggagcct gactcaggcc ctcaatgtgg  
720  
ctgaggctct ccaggaggct ggccatggag gctgaaaggg cagcgtccga gcttgccagt  
780  
aagttgtcag ccacactggg ggctgcagggt gggctaggca caggtagcag ggcagccgcg  
840  
ggtgccatgg acgccnntgg atgcgccga gagtgttcac gaccagcacc aggtgccgca  
900  
ggtccggctc actctgctgc aggctgtggt nggagcttga gactgagag gtcaaagagg  
960  
gagctagagg ccacggccgg gggtagctgt gccaccgctg cgtggccagg atctagccac  
1020  
caggagtcca ctgccagagg ttctttctcc tctctctctc cccgtttccg ctteagaccc  
1080  
ttgctcagca tcttgctcac tagcgccaa tcagaacgaa gaggtagcca cccacaacca  
1140  
atcaggaaac ggccggcgga gcatcgcttg ttggctgtcc tccggaaacc cgcgcctggg  
1200  
tcgcgagacg cagttctagc ga  
1222

<210> 4364

<211> 75  
 <212> PRT  
 <213> Homo sapiens

<400> 4364  
 Asp Arg Arg Thr Asp Val Lys Leu Pro Arg Thr Arg Phe Cys Leu Ser  
 1 5 10 15  
 Lys Val Ala Gln Ala Leu Phe Ser Val Leu Gly Lys Pro Ala Val Ser  
 20 25 30  
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp  
 35 40 45  
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser  
 50 55 60  
 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg  
 65 70 75

<210> 4365  
 <211> 469  
 <212> DNA  
 <213> Homo sapiens

<400> 4365  
 gacgtgctcg atggcaaggt cgcaccgggc aagaacgtgc cggctctacga caccatctgc  
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 gagttcaccg gcatgtcggt cgccgacttc ctcgctgaca agggcagcca ggttgagatc  
 120  
 gtcaccgacg acatcaagcc ggggtgtggcg attggcggtc cgtcggtccc gacctactac  
 180  
 cgcagcatgt acccgaaaga agtgatcatg accggcgaca tgatgctgga aaaggtctat  
 240  
 cgcgagggcg acaagctggt ggcgggtgctg gagaacgaat acaccggcgc caaggaagag  
 300  
 cgggtggtcg accaggtggt ggtggagaac ggtgtgcgtc cggatgagga aatctactac  
 360  
 gggctcaagg aaggttcgcg caacaagggc cagatcgatg tcgaagccct gttcgcgac  
 420  
 aagccgcagc cttcgctgaa tactcttaat gaagaggcag cgggtgacg  
 469

<210> 4366  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<400> 4366  
 Asp Val Leu Asp Gly Lys Val Ala Pro Gly Lys Asn Val Pro Val Tyr  
 1 5 10 15  
 Asp Thr Ile Cys Glu Phe Thr Gly Met Ser Val Ala Asp Phe Leu Ala  
 20 25 30  
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly  
 35 40 45  
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr  
 50 55 60  
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

```

65          70          75          80
Arg Glu Gly Asp Lys Leu Val Ala Val Leu Glu Asn Glu Tyr Thr Gly
          85          90          95
Ala Lys Glu Glu Arg Val Val Asp Gln Val Val Val Glu Asn Gly Val
          100          105          110
Arg Pro Asp Glu Glu Ile Tyr Tyr Gly Leu Lys Glu Gly Ser Arg Asn
          115          120          125
Lys Gly Gln Ile Asp Val Glu Ala Leu Phe Ala Ile Lys Pro Gln Pro
          130          135          140
Ser Leu Asn Thr Leu Asn Glu Glu Ala Ala Gly Asp
145          150          155

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<210> 4367  
 <211> 852  
 <212> DNA  
 <213> Homo sapiens

<400> 4367  
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 60  
 ggccttttgc aggtggaatt tccagaggcc cggatcttcg aggagaccct gaacatcctc  
 120  
 atctacgaga cccccgggg cccagaccca gccctcctgg aggccacagg gggagcagct  
 180  
 ggagctggtg gggctggccg cggggaggat gaagagaacc gagagcaccg tgtccgcagg  
 240  
 atccatgtcc ggcgccatat caccacgac gagcgtcttc atggccaaca aattgtcttc  
 300  
 aaggactgac ctctgacct cccctgect tctcttggcc ttgggaccca gtcctctct  
 360  
 ctttccctcc ccttcccaga cttttgcccc ggctctgctg gccaaagtct gggctcctct  
 420  
 ctgtcccttc attgcatggc acagctcact ttggcccttc tccaccgctc ccaaccccat  
 480  
 tgctaacaac atggtacatt ccggccccac cactcagagc ctccgaagc caacacttgt  
 540  
 cccaccctg gccctgcgtc ctccctctc cagctgggta agagggattt agaattccct  
 600  
 ttctcttttt ttagtgcatc gtccatgcca aagtgtgcgg ccttctctga catcaccaca  
 660  
 gtctgagcag cctcccgct cctgcagggt agtcgcccc ctctcccca ccctcctccc  
 720  
 tacctcctta actttgtact agactggcct gggcctgccc agctcagcgt tatcagtctg  
 780  
 ttctatatta ttattattt taattttcta ttaaattatt gaaataaagt taagttgaga  
 840  
 aactaaaaaa aa  
 852

<210> 4368  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 4368  
 Xaa Leu Gly Arg Gly Met Ala Leu Arg Asp Cys Thr Arg Arg Lys Glu  
 1 5 10 15  
 Leu Gly Pro Ala Gly Leu Leu Gln Val Glu Phe Pro Glu Ala Arg Ile  
 20 25 30  
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro  
 35 40 45  
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly  
 50 55 60  
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg  
 65 70 75 80  
 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln  
 85 90 95  
 Gln Ile Val Phe Lys Asp  
 100

<210> 4369  
 <211> 1264  
 <212> DNA  
 <213> Homo sapiens

<400> 4369  
 gctcagctgg ccaaccctga aatccccctg ggcagtgacg agcagttcct cctcaccctg  
 60  
 tcctccatca gcgagctctc tgcacgactt cacctctggg cattcaaaat ggattatgaa  
 120  
 actacagaaa aggaagtagc agaaccactc ctggacctga aggaaggaat agaccagttg  
 180  
 gagaacaata aaaccttggg ctttatcctg tctactctct tagccattgg gaactttcta  
 240  
 aatggaacta atgccaagc gtttgagtta agctacctcg agaaggttcc agaagtcaaa  
 300  
 gacacagtgc acaagcagtc gcttctccac catgtgtgca ccatgggtgt agaaaacttc  
 360  
 ccagacagct ccgatctgta ctgggagatc ggggccatca ccaggtcagc caagggtgac  
 420  
 tttgatcaac ttcaggataa tttatgtcag atggagagaa gatgcaaagc ttcattggat  
 480  
 cacctcaagg caattgcaaa acatgaaatg aaaccagttt taaaacaacg gatgtcagag  
 540  
 ttcttgaaag actgtgcaga gcgaattata attttaaaga ttgtccatag aaggataatc  
 600  
 aacagattcc actccttttt actctttatg ggccatccac cttatgcaat tcgggaagtg  
 660  
 aacataaaca aattctgcag gattattagt gaatttgac tagagtatcg cacaaccagg  
 720  
 gaaagggttt tgcagcagaa acagaaacgg gcccaaccaca gagagagaaa taagaccaga  
 780  
 gggaagatga tcaccgattc tggcaagtcc tccggcagtt ctccggcgcc cccaagccag  
 840  
 ccgagggtc tgagctatgc ggaggacgcg gctgagcacg agaacatgaa ggctgtgctg  
 900  
 aaaacctcgt cccctccag gagtccctg cacatacctt ctccatcgtg tcagctgtgt  
 960

ttctcttgat tccgtgacac ccggtttatt agttcaaaag tgtgacacct ttcttgggca  
 1020  
 aggaacagcc cctttaagga gcaaatcact tctgtcacag ttattatggt aatatgaggc  
 1080  
 aatctgatta gcttcacaga ctgagtctcc acaacaccaa aatatccaga tgtaaaccac  
 1140  
 aaacttgtag acaaaagaaa gcacagattg tttacctgtt gtggatttta gatgtaacaa  
 1200  
 atgtttatac aaatacatat atgtacacca tgtttcaaact actaaataaa tagagtttaa  
 1260  
 tgcc  
 1264

&lt;210&gt; 4370

&lt;211&gt; 322

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4370

Ala Gln Leu Ala Asn Pro Glu Ile Pro Leu Gly Ser Ala Glu Gln Phe  
 1 5 10 15  
 Leu-Leu-Thr-Leu-Ser-Ser-Ile-Ser-Glu-Leu-Ser-Ala-Arg-Leu-His-Leu-  
 20 25 30  
 Trp Ala Phe Lys Met Asp Tyr Glu Thr Thr Glu Lys Glu Val Ala Glu  
 35 40 45  
 Pro Leu Leu Asp Leu Lys Glu Gly Ile Asp Gln Leu Glu Asn Asn Lys  
 50 55 60  
 Thr Leu Gly Phe Ile Leu Ser Thr Leu Leu Ala Ile Gly Asn Phe Leu  
 65 70 75 80  
 Asn Gly Thr Asn Ala Lys Ala Phe Glu Leu Ser Tyr Leu Glu Lys Val  
 85 90 95  
 Pro Glu Val Lys Asp Thr Val His Lys Gln Ser Leu Leu His His Val  
 100 105 110  
 Cys Thr Met Val Val Glu Asn Phe Pro Asp Ser Ser Asp Leu Tyr Ser  
 115 120 125  
 Glu Ile Gly Ala Ile Thr Arg Ser Ala Lys Val Asp Phe Asp Gln Leu  
 130 135 140  
 Gln Asp Asn Leu Cys Gln Met Glu Arg Arg Cys Lys Ala Ser Trp Asp  
 145 150 155 160  
 His Leu Lys Ala Ile Ala Lys His Glu Met Lys Pro Val Leu Lys Gln  
 165 170 175  
 Arg Met Ser Glu Phe Leu Lys Asp Cys Ala Glu Arg Ile Ile Ile Leu  
 180 185 190  
 Lys Ile Val His Arg Arg Ile Ile Asn Arg Phe His Ser Phe Leu Leu  
 195 200 205  
 Phe Met Gly His Pro Pro Tyr Ala Ile Arg Glu Val Asn Ile Asn Lys  
 210 215 220  
 Phe Cys Arg Ile Ile Ser Glu Phe Ala Leu Glu Tyr Arg Thr Thr Arg  
 225 230 235 240  
 Glu Arg Val Leu Gln Lys Gln Lys Arg Ala Asn His Arg Glu Arg  
 245 250 255  
 Asn Lys Thr Arg Gly Lys Met Ile Thr Asp Ser Gly Lys Phe Ser Gly  
 260 265 270  
 Ser Ser Pro Ala Pro Pro Ser Gln Pro Gln Gly Leu Ser Tyr Ala Glu

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
	290				295						300				
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu	Cys
305				310						315					320
Phe	Ser														

&lt;210&gt; 4371

&lt;211&gt; 907

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4371

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acttttcaaaa tggcggagtg tggagcagc ggcagcggga gcagcgggga cagtctggac
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aagagcatca cgctgcccc cgacgagatc ttccgaacc tggagaacgc caagcgcttc
120
gccatcgaca taggcgggtc gttaaccaag ctggcctact attcaacggt acagcacaaa
180
gtcgccaagg tgcggtcttt cgaccactcc ggaaaggaca cagaacgtga acatgagccg
240
ccctatgaga ttccagttca agaagagatc actgctcgac tgcacttcat taagtttgag
300
aatacctaca tcgaagcctg cctggacttc atcaaagacc atctcgtcaa cacagagacc
360
aaggteatcc aggcgaccgg gggcggggcc tacaagtcca aggacctcat cgaagagaag
420
ctgcggctga aagtcgacaa ggaggacgtg atgacgtgcc tgattaaggg gtgcaacttc
480
gtgctcaaga acatccccca tgaggccttc gtgtaccaga aggattccga ccctgagttc
540
cggttccaga ccaaccaccc ccacatttcc ccctatcttc ttgtcaatat cggctctgga
600
gtctccatcg tgaagggtga gacggaggac aggttcgagt gggtcggcgg cagctccatt
660
ggaggcggca ccttctgggg gcttggcgct ctgctacca aaacgaagaa gtttgacgag
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780
tacggcggcg cccaccagac tctcgggctg agcgggaacc tcatcgccag cagcttcggg
840
aagtcggcca ccgccgacca agagttctcc aaagaagaca tggcgaagag cctgctgcac
900
atgatca
907

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&lt;210&gt; 4372

&lt;211&gt; 302

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4372

Thr Phe Lys Met Ala Glu Cys Gly Ala Ser Gly Ser Gly Ser Ser Gly

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1           5           10           15
Asp Ser Leu Asp Lys Ser Ile Thr Leu Pro Pro Asp Glu Ile Phe Arg
20           25           30
Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
35           40           45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
275          280          285
Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
290          295          300

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&lt;210&gt; 4373

&lt;211&gt; 1017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 4373

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acgcgtcatc acggetgcgc cgggggaatc cgtgcgggag ccttccgtcc cgggcccatc
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ctcgccgcgc tccagcacct ctgaagtttt gcagcgccca gaaaggaggc gaggaaggag
120
ggagtgtgtg agaggaggga gcaaaaagct caccctaaaa catatttttc aaggagaaaa
180
gaaaaagggg gggcgcaaaa atggctgggg caattataga aaacatgagc accaagaagc
240
tgtgcattgt tgggtgggatt ctgctcgtgt tccaaatcat cgcctttctg gtgggaggct
300

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tgattgctcc agggcccaca acggcagtg cctacatgtc ggtgaaatgt gtggatgccc  
 360  
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 420  
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<210> 4374  
 <211> 272  
 <212> PRT  
 <213> Homo sapiens

<400> 4374  
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 20 25 30  
 Gly Leu Ile Ala Pro Gly Pro Thr Thr Ala Val Ser Tyr Met Ser Val  
 35 40 45  
 Lys Cys Val Asp Ala Arg Lys Asn His His Lys Thr Lys Trp Phe Val  
 50 55 60  
 Pro Trp Gly Pro Asn His Cys Asp Lys Ile Arg Asp Ile Glu Glu Ala  
 65 70 75 80  
 Ile Pro Arg Glu Ile Glu Ala Asn Asp Ile Val Phe Ser Val His Ile  
 85 90 95  
 Pro Leu Pro His Met Glu Met Ser Pro Trp Phe Gln Phe Met Leu Phe  
 100 105 110  
 Ile Leu Gln Leu Asp Ile Ala Phe Lys Leu Asn Asn Gln Ile Arg Glu  
 115 120 125  
 Asn Ala Glu Val Ser Met Asp Val Ser Leu Ala Tyr Arg Asp Asp Ala  
 130 135 140  
 Phe Ala Glu Trp Thr Glu Met Ala His Glu Arg Val Pro Arg Lys Leu  
 145 150 155 160  
 Lys Cys Thr Phe Thr Ser Pro Lys Thr Pro Glu His Glu Gly Arg Tyr  
 165 170 175  
 Tyr Glu Cys Asp Val Leu Pro Phe Met Glu Ile Gly Ser Val Ala His



				180				185				190			
Lys	Phe	Tyr	Leu	Leu	Asn	Ile	Arg	Leu	Pro	Val	Asn	Glu	Lys	Lys	Lys
195				200				205							
Ile	Asn	Val	Gly	Ile	Gly	Glu	Ile	Lys	Asp	Ile	Arg	Leu	Val	Gly	Ile
210				215				220							
His	Gln	Asn	Gly	Gly	Phe	Thr	Lys	Val	Trp	Phe	Ala	Met	Lys	Thr	Phe
225				230				235				240			
Leu	Thr	Pro	Ser	Ile	Phe	Ile	Ile	Met	Val	Trp	Tyr	Trp	Arg	Arg	Ile
245				250				255							
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<211> 1966
<212> DNA
<213> Homo sapiens
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 1860  
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 1920  
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 1966

&lt;210&gt; 4376

&lt;211&gt; 399

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4376

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Asp	Phe	Leu	Met	Phe	Leu	Ser	Thr	Leu	Ser	Arg	Tyr	Ser	Ser	Ser	Ser
		20						25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
		35					40					45			
Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
	50					55				60					
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70					75				80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
			85					90					95		
Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
		100						105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Glu	Asp	Leu	Leu	Val	Val	His	Thr
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Arg	Arg	Tyr	Leu	Asn	Glu	Leu	Lys	Trp	Ser	Phe	Ala	Val	Ala	Thr	Ile

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      165              170              175
Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
      180              185              190
Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
      195              200              205
Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
      210              215              220
Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
225              230              235              240
Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
      245              250              255
Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
      260              265              270
Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
      275              280              285
Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
      290              295              300
Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
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305              310              315              320
Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
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Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
      340              345              350
Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
      355              360              365
Leu Asn Leu Phe Gly Leu Gly Leu Ile Gly Pro Glu Ser Pro Ser Val
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 420